PlateStream Platesetter

Click on desired manual:

- Quick Start Guide
- Installation Guide
- Operator Manual
- Service Manual
- Illustrated Parts List

Printware
LEADERS IN COMPUTER TO PLATE

1270 Eagan Industrial Road, St. Paul, MN 55121 • Phone: 800-456-1400 • Fax: 651-454-3684 • http://PrintwareInc.com

PlateStream 46

Platesetter

Quick Start Guide

Printware
LEADERS IN COMPUTER TO PLATE

700578 Rev. E

Contents

Introduction **QS-2**

Loading Plate Material **QS-2**

Control Panel Setup Menu **QS-3**

RIP Setup & Imaging Plates **QS-4**

Introduction

For detailed procedures on the control panel, plate media and chemistry, preventive maintenance, and trouble-shooting, see the PlateStream 46 Operator Manual.

Before making a plate, the Platesetter must be:

- Connected to the RIP—the I/O panel is located on the bottom rear of the machine.
- Ready to accept a job (Main Menu displayed on the control panel, On-Line state, no error conditions).
- The processing tanks must be filled to proper levels.

Loading Plate Material

1. Open the platesetter top cover. Raise the marker by pulling the marker lever towards the front of the platesetter until the lever stops. Lift up the marker gently.

2. Pull out the load knob on the left side of the platesetter. From inside the platesetter, adjust the two rear edge guides by pulling the edge guide knobs up and sliding to the position closest to the plate media width.

3. Adjust the two front edge guides by loosening the screw and moving all the way to the front.

4. Open the feed cassette by lifting the back of the lid and sliding forward at the same time. Remove the spool assembly. Adjust the left hub to match the edge guide position by squeezeing the clip and sliding on the shaft. Remove the right hub from the shaft by lifting the clip and sliding it off the shaft. Slide the media onto the shaft. Slide the right hub onto the shaft by lifting the clip and pushing down on the spool until the spool is tight against the media (see Figure QS-1). Insert the loaded spool assembly back into the feed cassette with 12" of media remaining outside the cassette.

5. Place the cassette onto the platesetter cassette mounting brackets.

6. Feed media through the 1st set of rollers and 2 edge guides.

7. Rotate the cassette up and lock into place on the platesetter. Be sure the media is not pinched between the cassette and the platesetter.

8. From inside the platesetter push the media up through the next edge guides and into the nip of the pinch roller.

9. Set the front edge guides up against the media and tighten the screw.

10. Gently lower the marker and lock down by pushing the marker lever towards the rear of the platesetter until the lever is horizontal. Close the top cover.

11. Set the plate width from the control panel setup menu.

12. Push the load knob in. This will automatically load the plate material.

13. Image one test plate from the control panel Test Plate menu.

Note: Destination must be set to “Processor” (see section **Control Panel Set up menu**).

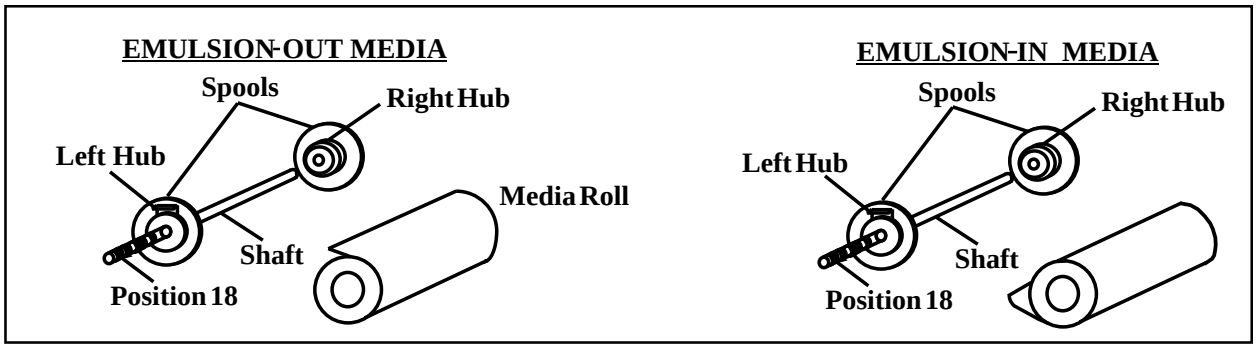
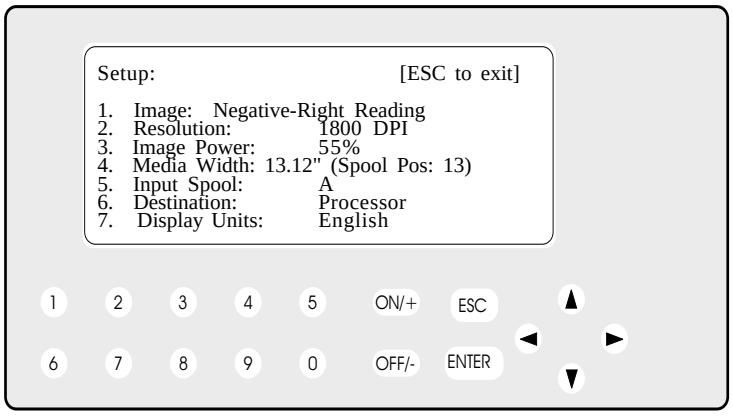


Figure QS-1. Loading Plate Media on Spool

Control Panel Setup Menu

The control panel Setup Menu (below) lists six options for changing various Platesetter parameters.


Setup: [ESC to exit]
1. Image: Negative-Right Reading
2. Resolution: 1800 DPI
3. Image Power: 55%
4. Media Width: 13.12" (Spool Pos: 13)
5. Input Spool: A
6. Destination: Processor
7. Display Units: English
1 2 3 4 5 ON/+ ESC
6 7 8 9 0 OFF/- ENTER

1. Image – Sets the type of imaging. The choices are: Positive or Negative Wrong Reading, and Positive or Negative Right Reading. The default is Negative-Right reading for plate media.

2. Resolution – Sets the resolution. The choices are: 900, 1200, 1800, or 2400 dpi.

3. Image Power – Sets the image power (laser intensity).

4. Media Width: xx.xx" (Spool Pos: yy) — Media Width is the exact width, entered by the operator, from 9.00" to 18.10" (22.90 cm to 46.00 cm). Spool Pos indicates the position to set the spool or cassette. Spool position is set at the media width in inches, rounded to the nearest inch, from 9 to 18.

5. Input Spool – Specifies the input spool. The choices are: A, B, C, or D.

6. Destination – Sets output destination for the imaged media. The choices are: "Processor," "Processor Miniplate" with Miniplate option, or "Cassette" with film option.

7. Display Units – Toggles between English and Metric display units.

ZAPrip HQ (Harlequin) RIP Setup; Imaging Plates

1. Startup the RIP

a. Connect the RIP to the network and turn it on.

b. Press ctrl-alt-del on the RIP to log into *Windows NT.*

c. Log in as **Administrator** with password: **printware**.

d. Double-click on the **Navigator** icon to launch the RIP.

2. Create appropriate page setup(s) in Page Setup Manager

a. Ensure that the "Negative" box is unchecked.

b. Specify plate size and image positioning in the **page layout** menu.

c. You can specify screens in the **Screening** menu, or leave it at factory defaults: **Override frequency** and **spot function**; **Euclidean Spot Function**; 100 to 150 **lpi frequency** (depending on resolution); the default **Angles**; **Use Harlequin Precision Screening**; and **Rotate screens according to Page Rotation.**

3. Publish the Page Setup on the network in Input Controller

The name associated with the Page Setup in Input Controller will show up on the front-end computer.

Note: You may want to specify a name which incorporates resolution, plate size, or the target press (*e.g.*, "GTO2up2400dpi").

4. Choose **Start Inputs** (the green traffic light icon) from the RIP menu.

5. Set up the front-end computer to print to the RIP

For best results, use the *Adobe* print driver and PlateStream 46 PPD. These are provided with the RIP. If you don't have the Adobe driver, the Linotype 630 driver can be used.

Note: On Windows front-ends, specify the platesetter as a **Local Printer** not a "Network Printer." This allows selection of the correct spool folder at print time.

6. Print the Job

a. On **Mac** front-ends, ensure that the appropriate device name has been selected in Chooser, and print normally from the application. Do not specify screens or resolution in the application.

b. On **Windows** front-ends, print to file from the application using the printer set up in step 3 (the default printer name is PlateStream 46 (the default printer name is PlateStream 46 when using the PlateStream 46 PPD). Select the ZAPrip HQ and the appropriate hot folder (**GTO2up2400dpi** in our example) as the destination by browsing **Network Neighborhood**. Select the PlateStream 46 PPD if the application supports PPDs. Do not specify screens or resolution in the application.

PlateStream 46

Platesetter

Installation Guide

Printware
LEADERS IN COMPUTER TO PLATE

700579 Rev. F

Contents

Pre-Installation Checklist **I-2**
- Confirm Electrical Requirements I-2
- Recommended Supplies I-3
- Scheduling Installation I-4
- Verify Final Location I-4

Precautions **I-4**

Unpacking and Inspection **I-5**

Assembling the Platesetter **I-6**

Joining the Imager and Processor Modules **I-8**

Assembling the Processor **I-8**

Installing the Raster Image Processor (RIP) **I-9**

Turning On the Platesetter **I-10**

Loading Plate Material **I-11**

Setting Replenishment Rates **I-13**

Changing Processor for 50/60 Hz Operation **I-14**

Physical Calibration **I-16**
- Overview I-16
- Cutter Skew I-16
- Transport Skew I-17
- Image Skew I-18
- Scan Width and Linearity Adjustment I-20
- Marker Position Adjustment I-20
- Adjusting Image Length I-21
- Adjusting Overlap I-22
- Adjusting Cut Length I-22
- Adjusting Backup Length I-23
- Adjusting Miniplate Backup Length I-23
- Punch Setup and Alignment I-25
- Punch Adjustment I-25
- Adjusting Punch Length I-27

De-Installing the Platesetter **I-28**

Serial Numbers and Factory Settings **I-32**

PLATESTREAM 46 PLATESETTER

INSTALLATION GUIDE

Pre-Installation Checklist

1. Confirm Electrical Requirements

Verify that the electrical power of the required voltage and current is available at the machine location. Verify an Ethernet network drop is available at the RIP location. The RIP requires a 10-Base-T or thin coaxial cable. The Platesetter requires a dedicated 200-240 VAC 20-amp, 50/60Hz three-wire single-phase electrical line. A 100-120 VAC 15-amp, 50/60Hz line with a power strip is required for the Raster Image Processor (RIP). The RIP can be switched to 200-240 VAC operation.

The Platesetter is shipped without a power plug. The Platesetter power cord length is approximately 9' (3 meters). The power plug used with the Platesetter must be rated for 20-amp 250-volt power and should have the proper safety certification for the country of use. The electrical wiring color codes are:

North America		International	
Black:	Line 1	Brown:	Line
White:	Line 2	Blue:	Neutral
Green :	Ground	Green/Yellow:	Ground

Verify that an electrician is available if needed.

2. Confirm Supply of Recommended Consumables

Have at least 16 gallons of working Activator on hand.

Have at least 16 gallons of working Stabilizer available.

Have plate media available as required. Plate media may be either paper- or polyester-based. Roll width may be from 9" to 18.1" (22.9 cm to 46.0 cm). The maximum roll length is 280' (85 m).

RECOMMENDED CONSUMABLES FOR PLATESTREAM 46

PRINTWARE: SILVERSTREAM +

RED LIGHT PLATE MEDIA:

	Emulsion In	
5 mil polyester	808555-XXX	(280 FT ROLLS)
8 mil polyester	808666-XXX	(280 FT ROLLS)

CHEMISTRY:

ACTIVATOR: 808777-001
STABILIZER: 808777-002

AGFA: SETPRINT PLUS

RED LIGHT PLATE MEDIA:

	Emulsion In
5 mil polyester	SET-R 0.13
8 mil polyester	SET-R 0.20

CHEMISTRY:

ACTIVATOR: G5200
STABILIZER: G5400

MITSUBISHI: SILVER DIGIPLATE

	INFRA-RED PLATE MEDIA			RED LIGHT PLATE MEDIA		
		Emulsion In	Emulsion Out		Emulsion In	Emulsion Out
5 mil paper	SDP RD125	SPEC28	SPEC28R	SDP RR125	SPEC28	SPEC28R
7 mil paper	SDP RD175	SPEC 28	SPEC28R	SDP RR175	SPEC28	SPEC28R
4 mil polyester	SDP FD100	SPEC 820	SPEC820R	SDP FR100	SPEC820	SPEC820R
7 mil polyester	SDP FD175	SPEC 820	SPEC820R	SDP FR175	SPEC820	SPEC820R

CHEMISTRY:

ACTIVATOR: SLM-AC
STABILIZER: SLM-ST

3. Scheduling Installation

Verify preparations that the machine will arrive and can be moved to its final location (loading dock, clear hallways, etc.) before scheduling installation. The Platesetter should be installed by an authorized service technician.

4. Verify Final Location

Select a suitable place for installation. Avoid excessive dust, vibration, and direct sunlight. The Platesetter is designed for use in a prepress environment. Acceptable ambient temperature range is 65°F to 80°F (18°C to 27°C) and acceptable relative humidity is 45 to 70%.

Check the necessary dimensions at the physical installation site (e.g. width of doors, etc.) with the Platesetter dimensions. To ensure optimal operation allow clearances of at least 24" (60 cm) on the left, 24" (60 cm) on the right, 24" (60 cm) in front, and 12" (30 cm) in the rear (see Figure I-1 on page 9). After uncrating, the depth of the Platesetter (which is on casters) is approximately 31" (79 cm).

If the optional effluent tank is not ordered, a method for plumbing to remove chemical effluence is required. This method must meet local environmental codes. The drain for the chemicals provided with the Platesetter is a vinyl flexible hose, 6' long, 1¼" (180 cm x 3 cm) outer diameter, and 1" inner diameter.

Precautions

1. Due to the 750 lb. (340 kg) weight of the Platesetter, use caution when removing Platesetter from pallet.

2. Follow electrostatic discharge (ESD) protective procedures when connecting cables or working near Platesetter PCAs, including:

- Ground yourself by touching the metal chassis of the Platesetter before connecting or disconnecting any cable.
- Use a wrist strap and an antistatic work surface, if possible, when handling PCAs or other electronic components.
- Always store and transport PCAs in antistatic bags.

Unpacking and Inspection

1. Keep all the shipping boxes, braces, crates, and packing pieces in case the Platesetter needs to be repackaged.

2. Inspect the Imager and Processor crates for signs of shipping damage. Report any damage discovered to the carrier immediately.

NOTE: Procedures refer to wooden crates used for international shipments. Procedures are similar for cardboard crates used for domestic shipments.

Unpacking the Imager

1. Remove the screws holding the top and sides of the crate labeled Imaging Module.

2. Remove the ramp from the foam cap and attach the ramp to the bottom of the crate using the two nails located in the front of the crate.

3. Remove the top cover, sides and the foam cap.

4. Remove the plastic wrapping from the unit.

5. Remove the screws from the four wood blocks mounted to the bottom of the crate. Remove blocks by slightly lifting the imager.

6. Roll the imager down the ramp and onto the floor carefully.

Unpacking the Processor

1. Remove the screws holding the top and sides of the crate labeled Processor Module.

2. Remove the top cover, sides and the foam cap.

3. Remove the plastic wrapping from the unit.

4. Remove the front panel and the three strips of bubble pack. Remove the metal shipping brace at the bottom of the Processor by removing the screws located above the front casters. Remove and unwrap the bubble pack from the two replenishment tanks and the optional effluent tank located underneath the Processor.

5. Attach the ramp to the bottom of the crate using the two nails located in the front of the crate. Close the top cover.

6. Remove the screws from the four wood blocks mounted to the bottom of the crate. Remove blocks by slightly lifting the Processor.

7. Roll the Processor down the ramp and onto the floor carefully.

Assembling the Platesetter

1. Remove the screws holding the top and sides of the marker crate. Carefully open the carton containing the marker assembly.

2. Remove the second cardboard cover from the marker assembly.

3. Cut the tie strap.

4. Identify the front and rear of the marker assembly (the front has a warning label and serial number; the rear has a grounding strap and welded hinge brackets). Remove the foam block from the marker.

****

CAUTION: Do not set the laser marker assembly down on a flat surface. This can damage the resonant galvanometer on the side of the assembly.

****

5. Open the Imager top cover and remove the strips of bubble pack. Remove tie straps and bubble wrap from struts. Remove the caps on the outside of each strut head. Detach the right cover strut on the marker end by removing the cap and pulling off the ball joint.

6. Locate the hinge shaft for attaching the marker assembly at the top inside left rear of the Imager.

7. Have two people lift the marker assembly from the carton . Place the marker assembly in the Imager by placing the hinge brackets on the hinge shaft (not on the brass bushings).

8. Slide the marker assembly mounting clip onto the right spring-loaded brass bushing.

9. Lift the other end of the marker assembly and place it past the brass bushing. Slide the brass bushing into place.

10. Remove the shipping brace (located on the laser end of the marker) by removing eight screws. Save the brace and screws in case the platesetter or marker need to be returned to the factory.

11. Remove the 26" by 1" (66 cm x 2.5 cm) piece of black tape from the bottom of the marker assembly by gently pulling on the loose end of the tape.

12. To attach the struts to the marker assembly:

    • Raise the marker assembly until the ball joints on the outside line up with the strut heads.

    • Firmly push the strut heads onto the ball joints and reattach the caps to lock the struts to the marker assembly.

13. Gently lower the marker assembly and lock by pushing the marker lever towards the rear of the Platesetter until lever is horizontal. Reattach the right cover strut by firmly pushing the strut head onto the ball joints and reattaching the caps to lock the strut.

14. Remove bubble pack from cables. Connect the cables to the marker assembly as follows:

    - Connect the orange and white wires to the connector located towards the front of the Marker next to the fan.
    - Connect the grounding strap from the rear of the marker assembly to the Imager unit frame.
    - Connect the 10-wire connector to connector J6 on the printed circuit card (PCA) assembly located on top of the marker assembly.
    - Connect the connector with a single ribbon cable to the connector J8 on the PCA.
    - Connect the connector with three ribbon cables to J9 on the PCA.

15. Remove the Imager front and rear panels. Remove the bubble pack from the black power cord located on the left side of the Processor. Feed the black power cord through the large hole located on the right side of the Imager. Plug the black power cord into the side of the power supply located in the bottom rear of the Imager.

16. Remove the bubble pack from the ribbon cable located underneath the processor. Connect the ribbon cable into the connector located in the right side of the Imager.

17. Check the level of the Processor and the Imager. If the Processor or Imager is not level use the casters to raise or lower the Processor or Imager. If the top covers touch when the covers are opened or closed use the Processor front right caster to raise or lower the Processor.

18. Open accessory boxes and remove bubble pack from contents. The contents should include:

    a. A PlateStream 46 Platesetter Quick Start Guide, Installation Guide, Operator Manual, and Service Manual.
    b. A small replenishment cart and tank.
    c. A wire tray and tray stops.
    d. Optional take up and supply cassettes.
    e. Optional punch chip collector and punch hoses.
    f. Tube with plate samples.
    g. Optional effluent cart and tank.
    h. Black tank cover, input guide, crossover guide, and overflow tubes.

Joining the Imager and Processor Modules

1. Before joining the two modules, route the processor power cable through the hole in the lower portion of the chassis, and make the appropriate connections to the power supply.

2. Align the pins in processor module with the holes in the imager module.

3. Remove the plastic bag taped to the inside front of the Imager which contain the four sets of hardware (9/16" x 1" bolts) to attach the Processor to the Imager.

4. Bolt the Processor to the Imager modules together using the four clearance holes located on the left side of the Processor and threading into the four threaded holes located on the right side of the Imager. Replace the Imager front and rear panels.

5. Route the processor ribbon cable to the connector on the left side of the processor.

6. Plug in the three-pin connector labeled “EXIT CAS” to the optional film cassette sensor located on the left side of the processor.

7. Insert wire tray into slots located on the top right side of the Platesetter. Attach customer supplied power plug to Platesetter power cord located in the rear of the machine per electrical wiring codes.

Assembling the Processor

NOTE: Follow manufacturer's safety instructions for Activator and Stabilizer, and *do not contaminate* the Activator pieces with Stabilizer solution.

1. Open the top right cover. Remove black tape holding Cover G, activator, and stabilizer racks. Remove the four styrofoam pieces located in the front and rear of the processor working tanks inside the Platesetter. Remove bubble pack wrapped around Cover E, Guide F, overflow tubes, and Cover G.

2. Place the overflow tubes in the large holes located in the rear of the processor working tanks, inside the Platesetter. Press down until overflow tubes stop. Place the spring pin from Guide F into the hole located in the rear of the activator tank while placing the other pin into the hole located in the rear of the stabilizer tank. Slide Guide F towards the rear of the Platesetter while placing pins on the other side of Guide F into the holes located in the front of the activator and stabilizer racks.

3. Place the two replenishment tanks on the smaller cart. Place the optional effluent tank on the optional larger cart.

4. If necessary prepare the Activator and the Stabilizer solutions in the replenishment tanks following the manufacturer's instructions. Fill the processor working tanks inside the Platesetter and the replenishment tanks with the solutions.

5. Remove the bubble pack from the replenishment probes located underneath the processor and insert probes into the replenishment tanks by screwing on the white cap. Remove the bubble pack from the optional effluent probe located underneath the processor and insert probe into the small hole on top of the optional effluent tank.

6. Label the replenishment tanks and replenishment probes following the instructions supplied with the processor labeling kit (note that the color codes are different for Mitsubishi and Agfa chemistry).

7. Attach one end of the 6' long, 1¼" (180 cm x 3 cm) diameter vinyl hose to the drain underneath the processor. If there is an optional effluent tank, place the other end in the optional effluent tank.

8. Gently push the cart(s) under the processor. Replace the right front panel.

9. Rotate the gears in the activator and stabilizer racks several times to free them up before operating the Platesetter. Close the top covers.

Installing the Raster Image Processor (RIP)

1. Unpack the RIP central processing unit (CPU) and inspect it for any obvious physical damage. If any component appears damaged, notify the carrier immediately.

2. Unpack the RIP keyboard.

3. Unpack the RIP monitor.

4. Plug the monitor cable into the back of the RIP CPU (this cable should fit only one way).

5. Connect the keyboard cable to the keyboard connector on the back of the RIP CPU.

6. Attach the network cable to the network interface connector on the back of the RIP CPU.

7. Plug in the RIP electrical power cord(s).

8. Connect the two interface cables between the RIP CPU and the Platesetter. The Platesetter I/O Panel is located on the bottom rear of the machine.

Turning On the Platesetter

1. The power switch for the Platesetter is located on the left side of the machine. To turn on the Platesetter, flip the switch up (see Figure I-1).

- Each time the Platesetter power switch is turned on, the Platesetter performs a series of tests of its internal components. If an error message appears on the control panel, see the section **Responding to Control Panel Error Messages** in the *PlateStream 46 Operator Manual*. If the display stops at any initialization point for more than five minutes, turn off the Platesetter and call for authorized service.
- The Platesetter boot-up procedure takes approximately four minutes. If best absolute accuracy is required, allow six hours for the Platesetter to reach operating temperature.
- Once the power up sequence is successfully completed, the control panel screen will show the main menu with On Line mode indicated and no error messages displayed.

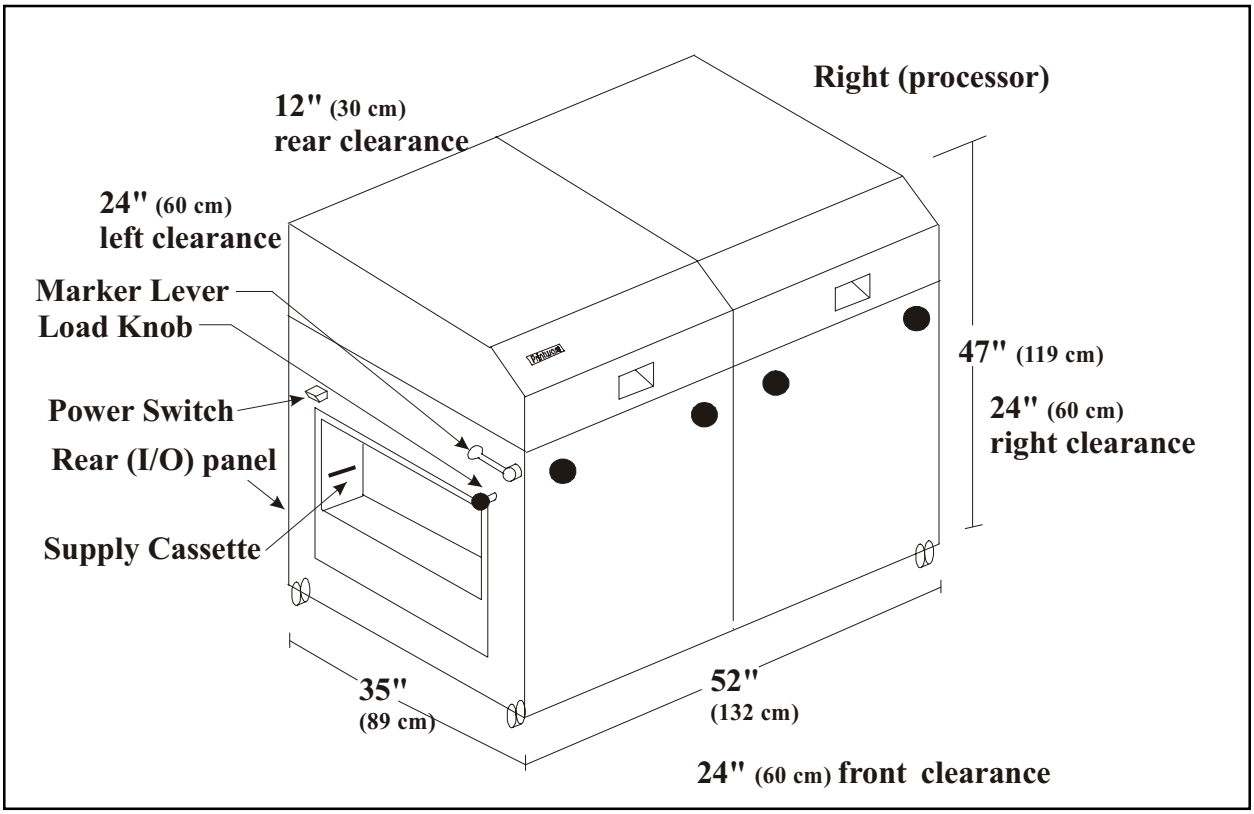


Figure I-1. Location of the Power Switch on the Platesetter

Loading Plate Material

1. Open the platesetter top cover. Raise the marker by pulling the marker lever towards the front of the platesetter until the lever stops. Lift up the marker gently.

2. Pull out the load knob on the left side of the platesetter. From inside of the platesetter, adjust the two rear edge guides by pulling the edge guide knobs up and sliding to the position closest to the plate media width.

3. Adjust the two front edge guides by loosening the screw and moving all the way to the front.

4. Open the feed cassette by lifting the back of the lid and sliding forward at the same time. Remove the spool assembly. Adjust the left hub to match the edge guide position by squeezeing the clip and sliding on the shaft. Remove the right hub from the shaft by lifting the clip and sliding it off the shaft. Slide the media onto the shaft. Slide the right hub onto the shaft by lifting the clip and pushing down on the spool until the spool is tight against the media (see Figure I-2). Insert the loaded spool assembly back into the feed cassette with 12" of media remaining outside the cassette.

5. Place the cassette onto the platesetter cassette mounting brackets.

6. Feed media through the 1st set of rollers and 2 edge guides.

7. Rotate the cassette up and lock into place on the platesetter. Be sure the media is not pinched between the cassette and the platesetter.

8. From inside the platesetter push the media up through the next edge guides and into the nip of the pinch roller.

9. Set the front edge guides up against the media and tighten the screw.

10.Gently lower the marker and lock down by pushing the marker lever towards the rear of the platesetter until the lever is horizontal. Close the top cover.

11. Set the plate width from the control panel setup menu. (Optional: Adjust the “feet remaining” feature on the control panel input spool manager menu.)

12. Push the load knob in. This will automatically load the plate material. (The control panel must be in the main menu or the test plate menu for this automatic feature to work). NOTE: Pressing the load key ‘5’ on the control panel main menu will also start the load media process.

13. Image one test plate from the control panel Test Plate menu.

NOTES:
• **'**Destination' must be set to "Processor" (see the **PlateStream 46 Platesetter Operator Manual** for control panel procedures).

• Cut off any punched area of plate before reloading to ensure a reliable load.

• Remove leader from daylight load media before loading media.

• Media must be loaded with no tears or wrinkles.

• Media must be reloaded after jams or other fault conditions. In this case, a message will appear on the operator panel to "Reload Media" or "Manually Reload Media."

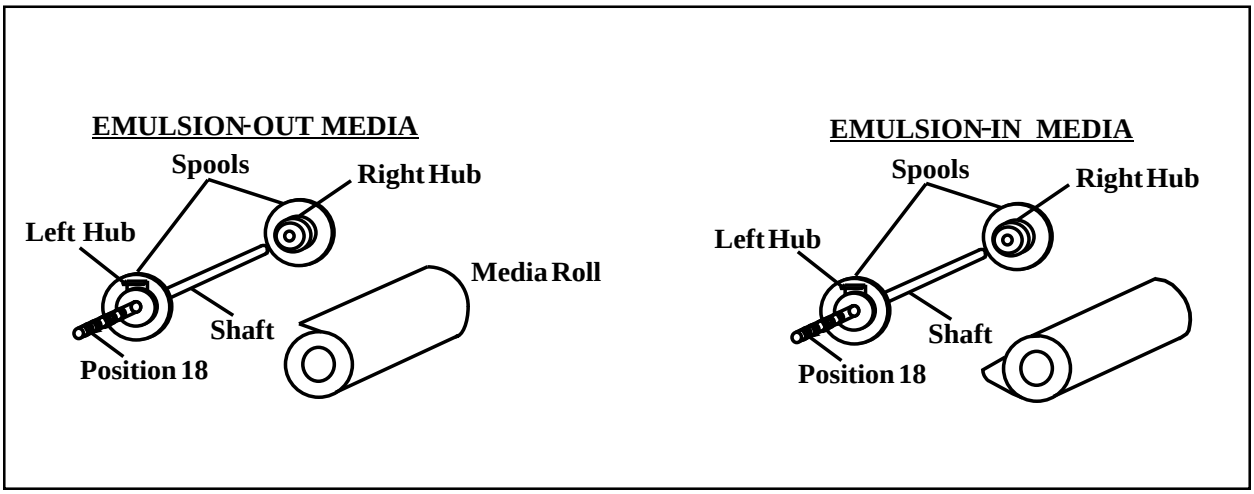


Figure I-2. Loading Plate Media on Spool

Setting Replenishment Rates

1. Open top cover and remove replenishment hoses from the working tanks inside the processor. Place the replenishment hoses in measurement containers.

2. From the control panel run a test plate that represents the average plate size that will be run on this Platesetter.

3. Compare the measured volume to the table outlined below. Recommended replenishment rates are as follows:

Printware SilverStream+
Activator or Stabilizer 0.37 ounces/ft² (120 ml/M²)

Agfa Setprint Plus
Activator or Stabilizer 0.37 ounces/ft² (120 ml/M²)

Mitsubishi Silver DigiPlate
Activator: 0.47 ounces/ft² (150 ml/M²)
Stabilizer: 0.63 ounces/ft² (200 ml/M²)

	Average Plate Size								
	0.6 ft² 0.06M²	**0.8 ft²** 0.07M²	**1.0 ft²** 0.09 M²	**1.2 ft²** 0.11 M²	**1.4 ft²** 0.13 M²	**1.6 ft²** 0.15 M²	**1.8 ft²** 0.17 M²	**2.0 ft²** 0.19 M²	**2.5 ft²** 0.23 M²
Printware SilverStream+									
Activator & Stabilizer oz	.23	.30	.38	.45	.53	.60	.68	.75	.94
Activator & Stabilizer ml	6.7	8.9	11.2	13.4	15.6	17.8	20.1	22.3	27.9
Agfa Setprint Plus									
Activator & Stabilizer oz	.23	.30	.38	.45	.53	.60	.68	.75	.94
Activator & Stabilizer ml	6.7	8.9	11.2	13.4	15.6	17.8	20.1	22.3	27.9
Mitsubishi Silver DigiPlate									
Activator ounces	.28	.38	.47	.57	.66	.75	.85	.94	1.18
Stabilizer ounces	.38	.50	.63	.75	.88	1.01	1.13	1.26	1.57
Activator milliliters	8.4	11.2	13.9	16.7	19.5	22.3	25.1	27.9	34.9
Stabilizer milliliters	11.2	14.9	18.6	22.3	26.0	29.7	33.5	37.2	46.5

5. If more replenishment is required turn the screw on the pump *clockwise*, if less replenishment is required turn the screw *counterclockwise*. The screw for the stabilizer replenishment is located towards the front of the pump, the screw for the activator is located towards the back of the pump. The adjustment screw has a ten-turn range.

6. If the average plate size changes, the replenishment rate should be adjusted.

Changing Processor for 50/60 HZ Operation

Note: The processor should be properly configured at the factory. This procedure is included for reference only.

Refer to figures I-3 and I-4. The AC motor that runs the Processor will run 5/6 of the speed at 50 Hz than at 60 Hz. The Processor speed can be adjusted by changing the drive and driven gears in the processor. The motors in the imaging section are microprocessor controlled and are not affected by the AC line frequency.

1. Unplug the power cord.

2. Remove the wire tray located on the right side of the Platesetter. Remove the right exit panel by unscrewing the four screws holding this panel. Remove the front right cover. Remove the gear access plate by unscrewing the six screws holding this panel.

3. Remove the drive motor by unscrewing the three screws holding the drive motor to the chassis. Disconnect the two drive motor leads and unfasten the motor ground wire. Take the drive belt off of the drive shaft by rotating the shaft and deflecting the belt off of the pulley. Take care not to damage the wiring. Remove the drive gear from the drive motor by loosening the two hex set screws in the gear.

4. Open the top right cover. Remove the driven gear from the drive shaft worm gear by loosening the two hex set screws in the gear. Slide the gear off of the drive shaft worm gear while pushing the shaft to the left. This allows the gear to clear the opening in the sheet metal.

5. For 60 Hz installation the smaller gear (18 Teeth) goes on the drive motor and the larger gear (20 Teeth) goes on the drive shaft worm gear. For 50 Hz installation the larger gear (20 Teeth) goes on the drive motor and the smaller gear (18 Teeth) goes on the drive shaft worm gear.
6. When installing the gear on the drive shaft worm gear, move the shaft all the way to the right. Center the gear in the sheet-metal slot. Tighten the two set screws. Make sure that one of the screws is on the flat of the shaft.
7. When installing the gear on the drive motor, push the gear onto the shaft leaving 0.04" (1 mm) between the gear and the motor housing. Tighten the two set screws. Make sure that one of the screws is on the flat of the shaft. Seat the belt onto the driven gear and motor gear while twisting the motor into position. Reinstall the two drive motor leads, motor ground wire, and 3 drive motor screws.
8. Reconnect the power cord.
9. Turn on the Platesetter. From the operator panel, start the processor (press 4,1,8). Observe that the belt and gears are rotating properly. From the operator panel reset processor (press 7). Switch off the Platesetter power.
10. Replace the panels and wire tray. Close the top right cover.

Calibrate the processor from operator panel

This calibration checks to see how long it takes the leading edge of a plate to get to the exit switch of the processor. This allows the Platesetter to properly detect a jam condition. This calibration should be run at each resolution (900, 1200, 1800, and 2400 DPI).

1. Load the plate material.
2. From the operator panel, calibrate the processor (press 4,2,1,1, enter). A plate will run through the processor.
3. From the operator panel, press [‘esc’, ‘esc’, ‘esc’] to return to the main menu.

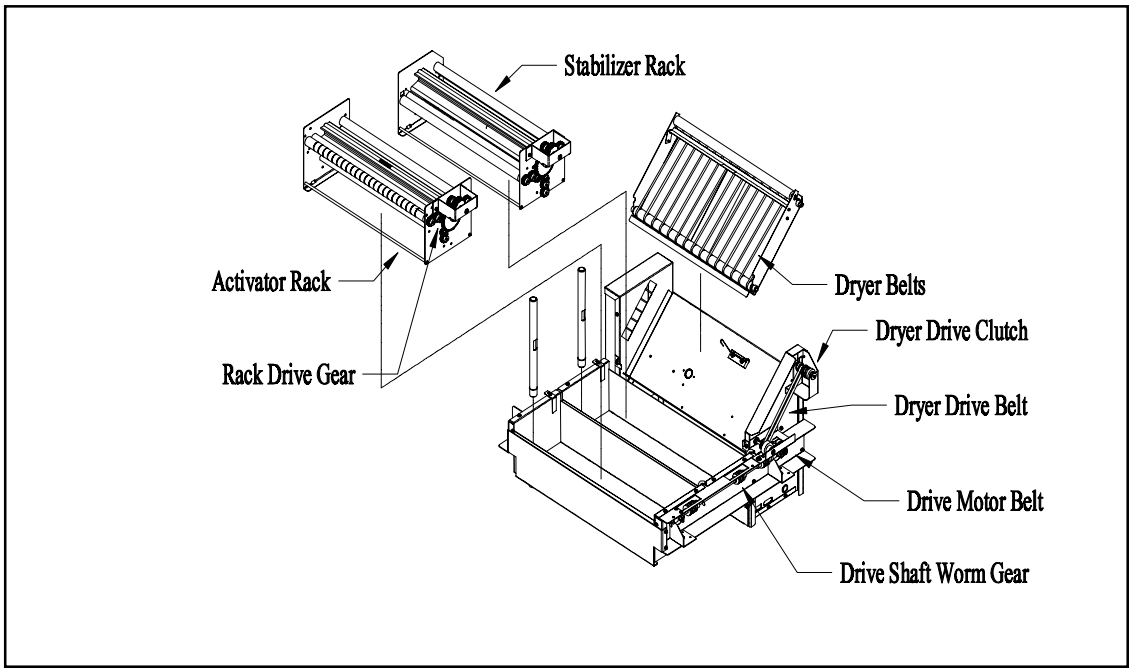


Figure I-3. Inside view of the Processor module

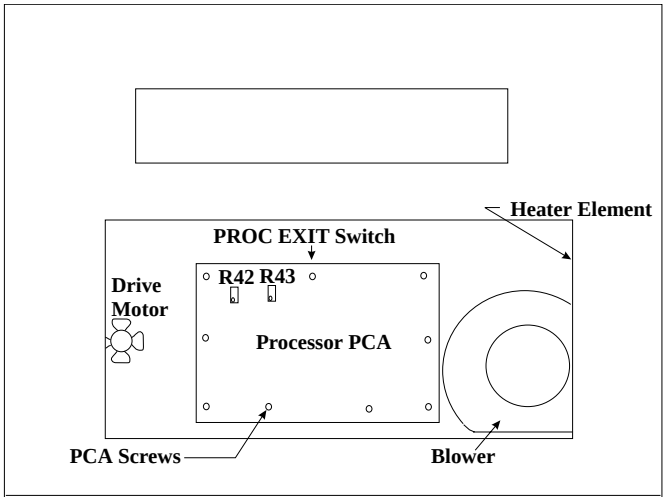


Figure I-4 Right side view of the PlateStream 46 Platesetter

Physical Calibration

Overview

Follow the procedures detailed in this section to calibrate Platesetter for production at the customer site. Be sure to follow these procedures in the order presented. Before performing these calibration procedures, make sure the Platesetter is in its final location, and that it has been properly leveled. Once set, these calibrations should not have to be repeated unless a problem is noticed. If any of the orange torque seals on the screws are broken the Platesetter warranty is void.

Cutter Skew

Plates must be cut square in order to avoid problems with image position, straightness and registration when mounted on the press. The cutter will pivot at the front of the Imager, and can be moved toward or away from the capstan roller at the rear of the unit.

1. To determine plate cut squareness, print either a grid pattern or a solid pattern from the RIP.

2. Once the plate has been imaged and processed, measure and compare the diagonal distance of opposite corners of the cut plate (see Figure I-5).

3. If the plate is square within specification, skip the remaining steps and go on to the **Transport Skew** procedure.

4. Remove the back cover from the Platesetter. Locate the cutter bracket and note the current position of the cutter; a reference line will be inscribed on the bracket at the factory.

5. Loosen the two 9/64" Allen-cap screws.

- If angle A is <90°, tighten adjustment screw.
- If angle A is >90°, loosen adjustment screw.
- **Note**: 1 full turn of the adjustment screw moves the cutter approximately .020" .
- Tighten the two 9/64" Allen cap screws.
- After adjustment, run two plates and check the second plate for skew.

NOTE: You must run two plates before checking the results as the first plate will have one cut made at the previous setting.

6. Continue adjusting cutter position and inspecting test plates until the plate is cut square. Reattach the rear cover to the Imager unit.

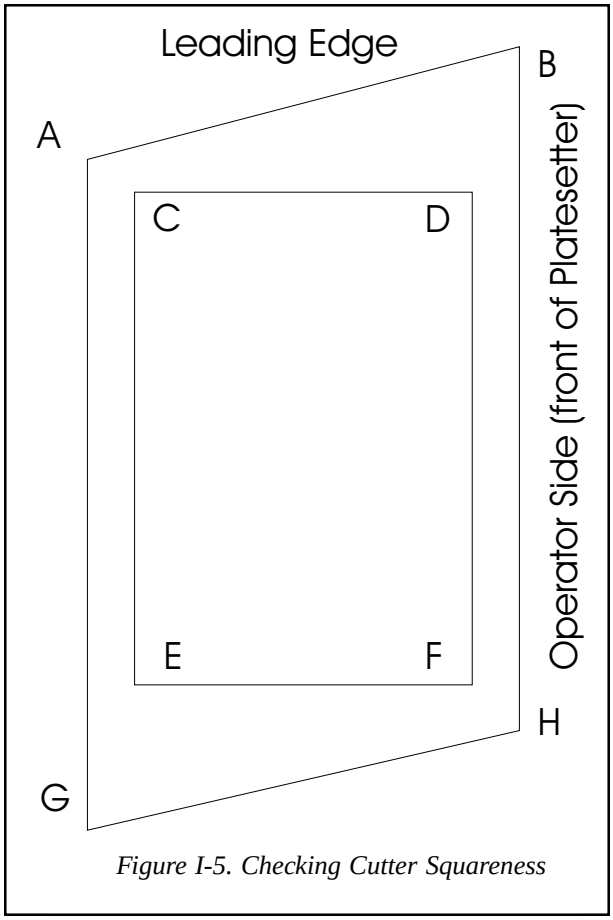


Figure I-5. Checking Cutter Squareness

Transport Skew

Transport skew results when the media is not feeding through the rollers perpendicular to the capstan roller. Before making any other adjustments, check the four edge guides to ensure they are securely in place. Also check the adjustable guides toward the front of the Platesetter; they should be flush with the media, but not so tight that they cause the media to buckle as it moves. If you are unsure of whether or not the media is being transported properly, open the Platesetter top cover, press the load key **'5'** on the Platesetter control panel Main Menu, and watch the media. Once you have determined that the edge guides are properly in place, follow the procedure below to optimize transport skew:

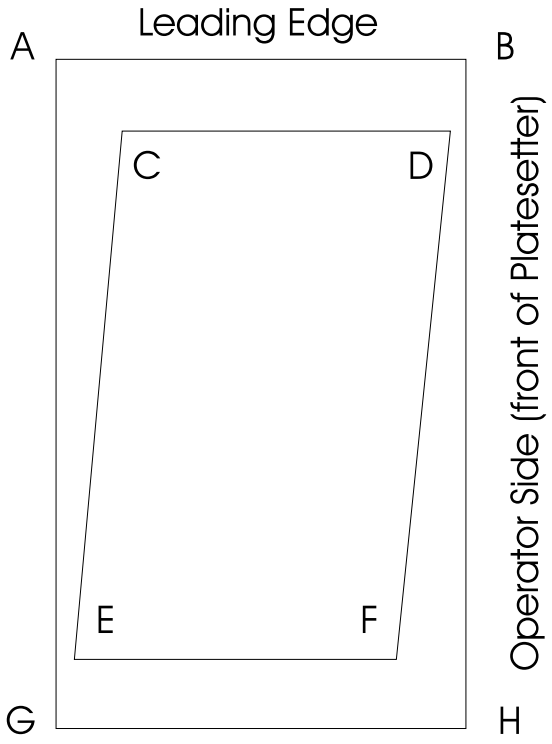


Figure I-8. Checking for Transport Skew

1. To determine whether or not the image is square on the plate, print either a grid pattern or a solid pattern from the RIP.

2. Once the plate has been imaged and processed, measure the angle E (see Figure I-8). Adjust roller pressure to eliminate transport skew as follows (see Figure I-9):

- If angle E is >90°, tighten the roller pressure on the front (operator) end of the second pinch roller.
- If angle E is <90°, tighten the roller pressure on the rear end of the second pinch roller.

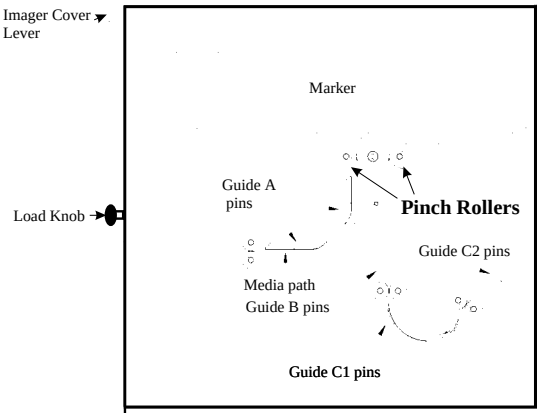


Figure I-9. Location of the Pinch Rollers

Image Skew

Image skew is caused by the laser marker assembly being "tilted" relative to the capstan roller. Image skew is present when the material is square, but the image on the media is measurably skewed.

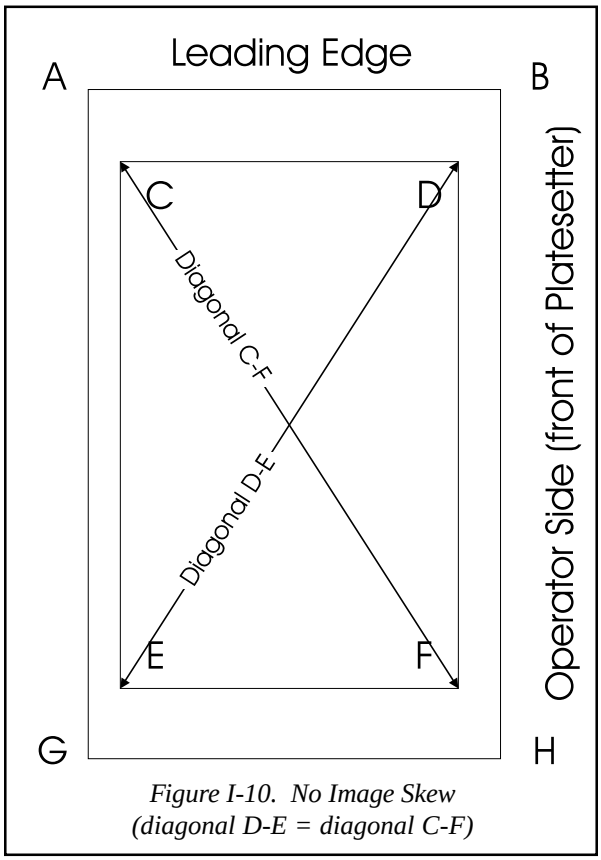


Figure I-10. No Image Skew (diagonal D-E = diagonal C-F)

1. Check for image skew by comparing the two diagonal image measurements:

- Measure the distance from point C to point F (see Figure I-10) and compare this to the distance from point D to point E.
- If the two diagonal measurements are equal, no image skew is present; skip the remainder of this procedure and go on to the next section, **Scan Width and Linearity Adjustment**.

2. To correct image skew, adjust the laser marker assembly position bolt. Notify Printware's Customer Service Department at 1-800-456-1400 before adjusting this bolt to avoid warranty issues. To locate this bolt:

- Stand in front of the Platesetter (operator side) facing the Platesetter.
- Open the Imager unit top cover.
- Look down at the point where the laser marker assembly rests on the Imager module metal frame. Locate the laser marker assembly/Imager cover locking clamps.
- The adjustment bolt is just to the right (toward the Processor module) of the right locking clamp.

3. Figure I-10 shows no image skew. If the image skew condition shown in Figure I-11 is present, turn the adjustment screw *clockwise* to lower the front of the laser marker assembly.

4. If the image skew condition shown in Figure I-12 is present, turn the adjustment screw *counterclockwise* to raise the front of the laser marker assembly.

5. After each adjustment, close the platesetter top cover. Run two test plates and measure the second plate for image skew. Continue until the image is square on the plate.

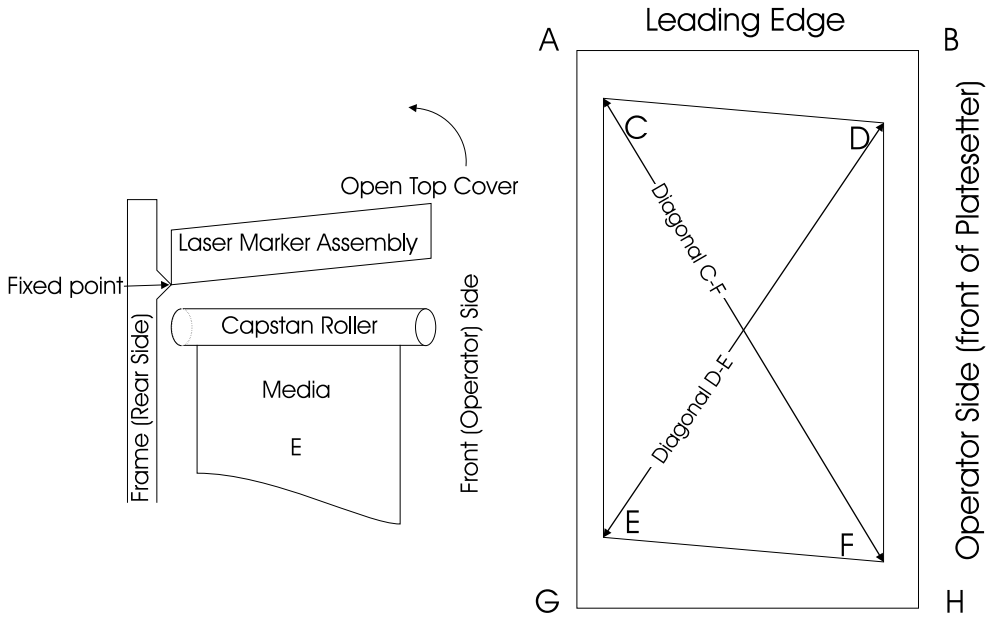


Figure I-11. Image Skew—Laser marker assembly too high in front (diagonal D-E < diagonal C-F)
Turn adjustment screw *clockwise* to correct

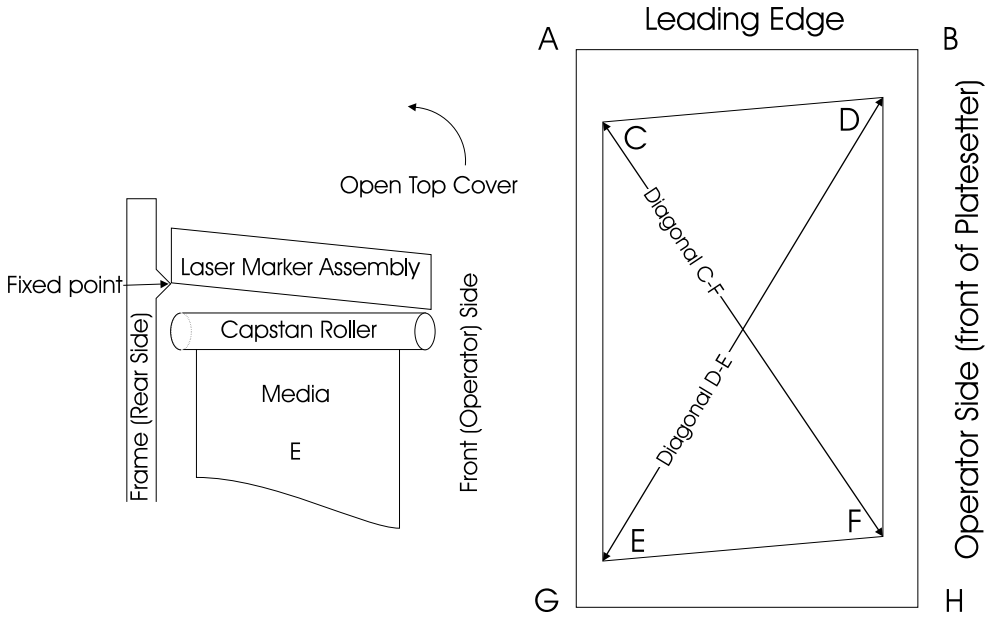


Figure I-12. Image Skew—Laser marker assembly too low in front (diagonal D-E > diagonal C-F)
Turn adjustment screw *counterclockwise* to correct

Scan Width and Linearity Adjustment

This procedure enables you to fine-tune the imaging accuracy and the positioning of the laser beam. The overall width of the image on the plate is determined by the positions of two sensors accessible from the front (operator side) of the laser marker assembly. These sensors are called the Start-of-Trace (SOT) and Start-of-Scan (SOS) sensors. The SOT sensor controls the total width of the laser scan, which is wider than the maximum media width. SOS provides the timing reference which starts the active portion of the laser scan across the media. Adjusting these two sensors controls the scan width and linearity of the laser marker assembly. The sensors are accessed through a small hole in the front of the laser marker assembly. Use a 3/32" Allen key for adjustments.

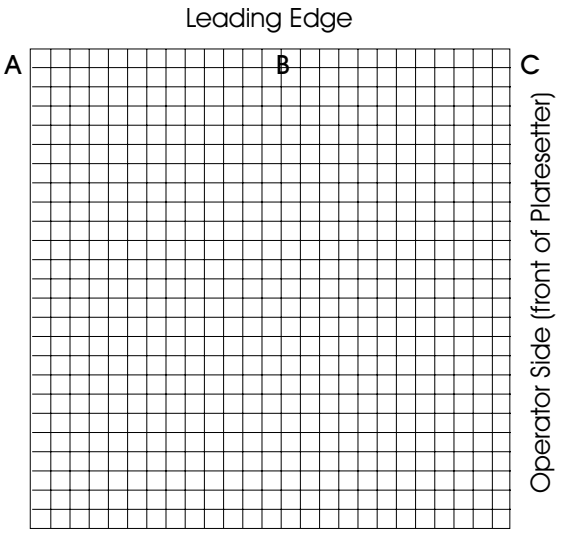


Figure 1-11. Adjusting Scan Width and Linearity

To adjust the SOT sensor (scan width):

1. From the RIP, output the Grid18.ps file.
2. Measure the distance between points A and C (see Figure I-13).

- If the distance between A and C is >17.000" (43.18 cm), turn the sensor position screw *counterclockwise*.
- If the distance between A and C is <17.000" (43.18 cm), turn the SOT screw *clockwise*. One full turn is approximately 0.030" (0.08 cm).

To adjust the SOS sensor (linearity):

Measure the distance between points A and B (see Figure I-13).

- If the distance between A and B is >8.500" (21.59 cm), turn the sensor position screw *counterclockwise*.
- If the distance between A and B is <8.500" (21.59 cm), turn the SOS screw *clockwise*. One full turn is approximately 0.015" (0.04 cm).

Marker Position Adjustment

Physical movement of the marker is not recommended. There is, however, an operator-panel adjustment to compensate for slight differences in marker location. From the Main Menu on the control panel:

- Press **'4'** (More Information).
- Press **'2'** (Calibrate).
- Press **'4'** (Marker Position: xx.xx").

The image can be moved up to ±0.05" (±0.13 cm). A positive value moves the image towards the non-operator side; a negative value moves it towards the operator side.

Adjusting Image Length

This procedure enables you to fine-tune the image length setting of the Platesetter to compensate for small mechanical variations in components such as the rollers, or drive motors. This adjustment is made on the **Calibrate Transport Menu** on the control panel. This procedure should be completed for 900, 1200, 1800, and 2400 dpi.

NOTE: Before adjusting image length, clean all transport rollers inside the Platesetter.

1. From the **RIP\JOBS** directory on the RIP, output the Grid18.ps file.

2. Measure the distance between points A and B (see Figure I-14). Use a precision steel ruler or digital measuring device to check this distance (a digital measuring device is more precise).

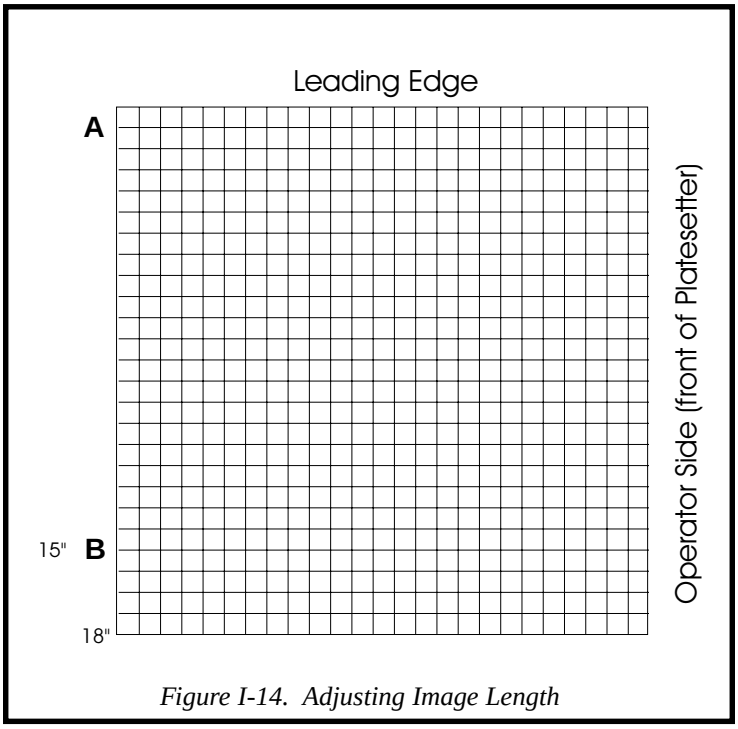


Figure I-14. Adjusting Image Length

3. If the distance between points A and B is >15.000" (38.10 cm), increase the **Manual Length Adj** value; if the distance between A and B is <15.000" (38.10 cm), decrease **Manual Length Adj**. To adjust this value:

- From the Main Menu on the control panel, press the **4** key (More Information).
- Press **'2'** (Calibrate).
- Press **'1'** (Calibrate Transport...).
- Press **'2'** (Manual Length Adj:). Enter the amount to decrease or increase. For example, if the distance is 15.010, enter .010. If the distance is 14.990 enter -.010. The length change displayed is reset to '0' after pressing enter.
- Print the Grid.ps file again, and measure the distance between points A and B.

4. Repeat steps 1 through 3 until length is within specification.

5. At 900 dpi, the manual length is adjustable in 0.006" (0.015 cm) increments, at 1200 dpi in 0.004" (0.01 cm) increments, 1800 dpi in 0.003" (0.08 cm) increments and at 2400 dpi in 0.002" (0.005 cm) increments.

NOTES:

- It is best to make small, incremental changes. Once you enter a new value for **Manual Length Adj**, it is immediately copied to the battery backup. Be careful not to make big adjustments as this could result in corrupt data in the firmware.
- The specification for image length accuracy is ±0.003" (75 microns).

Overlap Adjustment

In waste reduction mode, the Platesetter scans the leading and trailing edges of the plate, causing a black area to appear. This black area is the unimageable area of the plate.

At the leading edge of each plate is a double-exposed area, visible as a black band, where the media was exposed on the trailing edge of the previous plate, backed up and re-exposed on the leading edge of the current plate. If a silver line appears in this lead area, then the *overlap adjust* is set too low.

1. From the RIP/JOBS directory on the RIP, output the Grid 18.ps file.

2. To make the adjustments described below, from the Main Menu on the control panel:

- Press **'4'** (More Information).
- Press **'2'** (Calibrate).
- Press **'1'** (Calibrate Transport...).

Adjusting Cut Length

1. Measure the distance between points C and D (see Figure I-15).

2. If the distance between C and D is >0.5" (1.27 cm), decrease the value for **Cut Length Adj** on the control panel by the difference (for example, if the measured value is 0.505", and Cut Length Adj is set at 1.955", then decrease Cut Length Adj to 1.950").

3. If the distance between C and D is <0.5" (1.27 cm), increase **Cut Length Adj** by the difference.

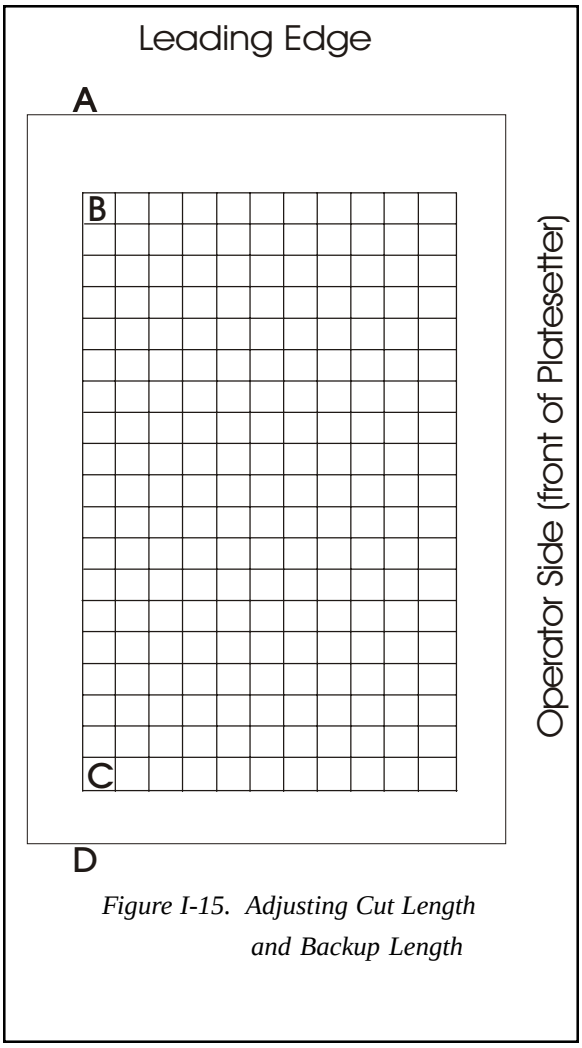


Figure I-15. Adjusting Cut Length and Backup Length

Adjusting Backup Length

1. Measure the distance between points A and B (see Figure I-15).

2. If the distance between A and B is >1.200" (3.05 cm), increase the value for **Backup Length Adj** on the control panel by the difference (for example, if the distance between A and B is 1.250", and Backup Length Adj is set at 1.350", increase Backup Length Adj to 1.400").

3. If the distance between A and B is <1.200" (3.05 cm), decrease **Backup Length Adj** by the difference.

4. Recheck overlap by measuring the width of the black band at the leading edge of the plate.

5. The width should be *at least* 0.050" (0.13 cm).

6. If a silver line appears, increase the value for **Overlap Length Adj** on the control panel.

Adjusting Miniplate Backup Length

Miniplate Backup Length can be used to adjust or eliminate the gap between Miniplate jobs. It also adjusts the gap between jobs in the Cassette Mode.

1. To turn Miniplate Mode ON, from the Main Menu on the control panel:
   - Press **'1'** (Setup).
   - Press **'6'** (Destination).
   - Select 'Processor Miniplate' as the output destination.

2. To enable Miniplate Backup, from the Main Menu on the control panel:
   - Press **'4'** (More Information).
   - Press **'6'** (Miniplate Backup).
   - Press **'ON/+'** to turn Miniplate Backup ON, enabling calibration of the gap between Miniplate jobs.
   - Press **'5'** to select Miniplate Cut Length. Set to the intended plate length (*e.g.*, 12"), then press **'ENTER'** to save.

3. To run a test plate, from control panel Main Menu:
   - Press **'2'** (Test Plate).
   - Press **'3'** (Choose Length). Set to the approximate intended length of the Miniplate jobs (*e.g.*, 4"), then press **'ENTER'** to save.
   - Press **'2'** (Choose Pattern). Use the **'ON/'+** key or the **'OFF/'-** key to scroll through the patterns. Select the "Screen" pattern, then press **'ENTER'** to save.
   - Press **'1'** (Run XX Plates).
   - Enter the number of jobs per miniplate. Press **'ENTER'** to image a Miniplate test plate.
   - Press **'ESC'** to return to the Main Menu.

4. To calibrate the gap between Miniplate jobs, from the More Information Menu:
   - Press **'2'** to go to the Calibrate Menu.
   - Press **'1'** (Calibrate Transport).
   - Press **'7'** (Miniplate Backup Length Adj).

5. To decrease the gap between jobs, increase the value for Miniplate Backup Length Adj on the control panel. To increase the gap, decrease the value. Note that Miniplate Backup creates a non-imageable area equal to the Backup Length on the trailing edge of each job.

6. If necessary, follow the procedure for all resolutions to be used with the Miniplate mode (Miniplate Backup Length is set independently for each resolution). The default Miniplate Backup Length for each resolution is:

Resolution	Default Miniplate Backup Length
900 dpi	0.134"
1200 dpi	0.084"
1800 dpi	0.021"
2400 dpi	0.010"

Punch Set-up (with optional punch installed)

The punch is an electronically actuated, pneumatic system. There is a compressed air connection on the lower rear panel of the platesetter. Air should be clean and oil-free, and air pressure should be 80.

Air can be supplied either from shop air or an optional auxiliary compressor.

The punch waste chip bin is attached magnetically to the wall in the back of the load compartment. It should be removed and emptied periodically.

Punch Adjustment

There are two physical calibration adjustments for the punch: lateral (side-to-side) alignment, and skew or parallelism to the cut edge. Additionally, the punch depth (longitudinal position) can be adjusted in the Operator Panel.

NOTE: Before adjusting the punch, ensure that the cutter has been adjusted correctly (see previous section). Because the punch adjustment uses the cut edge as a reference, the cutter must be adjusted first.

Lateral Alignment

1. To enable the punch, from the Main Menu on the control panel:
   - Press **'4'** (More Information).
   - Press **'8'** (Punch).
   - Press **'ON/+'** to turn the punch on.

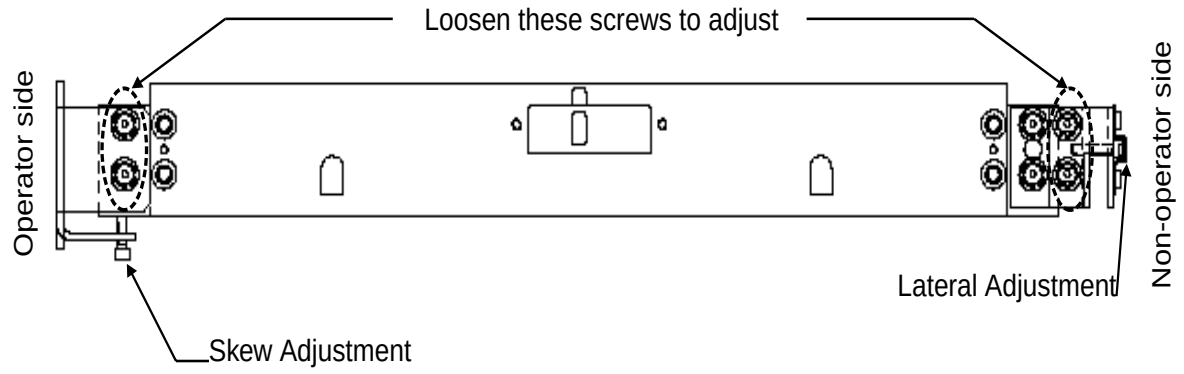


Figure I-6. Lateral and Skew Punch Adjustments

2. Run a test plate with the punch on.

NOTE: Use the intended plate width for these adjustments. Lateral alignment depends on the plate width.

3. With a 9/32" Allen wrench, loosen the two screws on either side of the punch assembly (see Fig. I-6).

4. Center the punch pattern on the plate by adjusting the Lateral Adjustment Screw with a Phillips screwdriver. Tightening the screw (clockwise) moves the punch pattern toward the operator side. To move the punch pattern toward the non-operator side, loosen the screw (counterclockwise) and move the punch. Each turn moves the punch approximately 0.030".

5. Tighten the two screws on the non-operator side of the punch assembly. Leave the two screws on the operator side loose for adjusting skew.

Punch Skew

1. Loosen the two screws indicated in Fig. I-6 on the operator side if they have not been loosened for lateral adjustment.

2. Measure the location of the punch pattern relative to the grid pattern on the test plate (Refer to Fig. I-7).

- If A>B (non-operator side deeper), loosen the 4 locking screws and turn the Skew Adjustment Screw clockwise. Each turn moves the punch approximately 0.030" (0.08 cm).
- If A<B (operator side deeper), turn the Skew Adjustment Screw counterclockwise.

3. After adjustment, run another plate to check for punch skew.

4. Continue adjusting punch skew until the punch pattern is sufficiently parallel to the cut edge.

5. Tighten the two screws indicated in Fig. I-16 on the operator side.

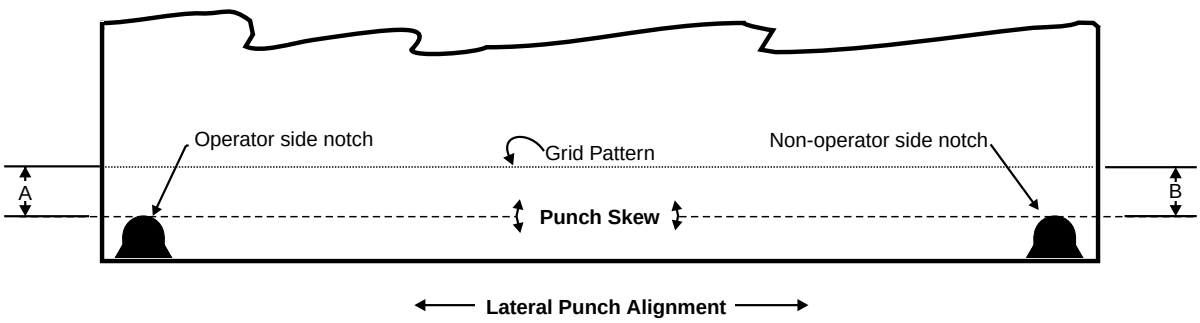


Figure I-7. Punch Alignment and Skew

Adjusting Punch Length

1. To enable the punch, from the Main Menu on the control panel:
 • Press **'4'** (More Information).
 • Press **'8'** (Punch).
 • Press **'ON/+'** to turn the punch on.

2. Run a test plate with the punch on.

3. Return to the Calibrate Transport menu.

4. Measure the depth or position of the punch notch (see Figure I-16).

5. For the Bacher punch pattern, the notch depth should be 0.433" (11 mm). For the pin-bar pattern, the center of the holes should be 0.3125" (7.94 mm) from the edge. To increase the depth, increase the value for **Punch Length Adj** and increase **Backup Length Adj** by the same amount (there is a separate set of **Backup Length** values with the punch enabled). Decreasing the values decreases depth.

6. If necessary, follow the procedure for all resolutions to be used with the punch mode (Punch length is set independently for each resolution).

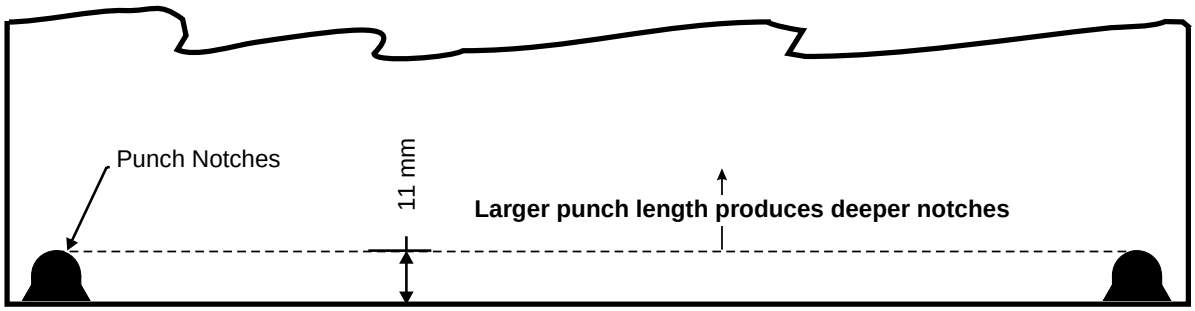


Figure I-16. Adjusting Punch Length

De-Installing the Platesetter

These instructions are provided in the event you ever need to repackage the Platesetter.

1. Turn off the Platesetter and RIP.

2. Disconnect the Imager cable from the rear of the Platesetter.

Packaging the Platesetter

A. Package the processor section:

1. Open the top right cover and remove the optional film take-up cassette. Bubble wrap the cassette, and place in accessory box.

2. Drain processor:
   a. Remove the right front panel and gently roll out the effluent cart. Drain the effluent cart. Reinstall the effluent tank and place the 6' long, 1¼" diameter, vinyl hose from underneath the processor in the optional effluent tank.
   b. Drain the processor working tanks by removing the overflow tubes located inside the Platesetter (top section) to the rear of the processor tanks.

3. Clean processor:
   a. Remove cover E.
   b. Remove guide D. (Press guide towards the front of the Platesetter, lift guide from the rear of the Platesetter and remove).
   c. Remove guide F (Press guide towards the rear of the Platesetter, lift guide from the front of the Platesetter and remove).
   d. Remove Activator and Stabilizer racks.
   e. Clean the processor working tanks using warm soapy water.
   f. Drain and clean the hoses.

4. Package inside of processor:
   a. Place 4 plated (metal or plastic) Styrofoam pieces in the front (operator side) of the processor working tanks.
   b. Place 2 non-plated Styrofoam pieces in the rear (non-operator side) of the working tanks.
   c. Replace the activator and stabilizer racks, and tape them down.
   d. Replace Guide D.
   e. Bubble wrap cover E, guide F and overflow tubes, and tape to the top of the working tanks.
   f. Place bubble wrap over Cover G and tape down.

5. Package Carts:
   a. Roll out the replenishment cart and the optional effluent cart.
   b. Remove probes from the replenishment tanks and the optional effluent tank, air blow dry, and place them in the plastic clip located underneath the right side of the processor section.
   c. Empty tanks per local environmental codes.
   d. Individually bubble wrap the cart(s) and tanks. Place cart(s) in the accessory box.
   e. Remove 6' long, 1¼" (180 cm x 3 cm) diameter vinyl hose from underneath the processor. Place in accessory box.

6. Disassemble the Processor.

a. Remove the left front and rear panels. Disconnect the ribbon cable from the connector located in the left side of the Processor. Bubble wrap the end of the ribbon cable.
b. Unplug the three pin connector labeled “EXIT CAS” from the optional film cassette sensor located on the left side of the processor.
c. Separate the Processor from the Imager by unbolting the four bolts located on the left side of the Processor that attach the Processor to the Imager. Place the four sets of hardware in a plastic bag and tape to the inside front of the Imager.
d. Unplug the black power cord from the power supply located in the bottom rear on the Imager. Bubble wrap the end of the cable and place inside the Processor.
e. Remove the wire tray located on the right side of the Platesetter. Bubble wrap and place in accessory box.

7. Package the Processor

a. Close the top cover of the Processor. Place two DESI PAK bags on the Processor crate. Roll the Processor up the ramp onto the Processor crate.
b. Attach the metal shipping brace to the inside bottom of the front with screws. Place replenishment and optional effluent tanks underneath Processor.
c. Support the Processor up off of the wheels by:

1. Placing the 18" by 6 3/4" (46 cm x 17 cm) wood block, with lip, underneath the brace in the bottom front of the Processor. The frame must rest on the foam.
2. Placing the 18" by 6 3/4" (46 cm x 17 cm) wood block underneath the bottom back of the Processor. The frame of the Processor must rest on the foam.
3. Placing the two 24" by 6 3/4" (61 cm x 17 cm) wood blocks underneath the bottom sides of the Processor. The frame must rest on the foam.
4. Attaching all four wood blocks to the crate by using two wood screws in each block.
5. Replace the front and rear panels. Place three strips of bubble wrap on the front panel.

d. Plastic wrap the entire Processor. Place the foam cap over the Processor. Place the 33" (84 cm) -wide plywood with notches, on the front of the crate with the boards facing inside the crate and the notches on the bottom. Place the 33" (84 cm) -wide plywood on the back of the crate with the boards facing inside the crate. Place the two 50" (127 cm) -wide plywood on the sides of the crate with the boards facing inside the crate and flush with the bottom. Screw the top and the sides together. Make sure the top cover and the sides are very secure.

B. Package the marker:

1. Disconnect cables:

a. Disconnect the grounding strap from the imager section frame.
b. Disconnect the 10-wire connector from J6 on the printed circuit assembly (PCA) located on top of the laser marker assembly.
c. Disconnect the ribbon cables from J8 on the PCA and J9 on the PCA.
d. Disconnect the orange and white wires from the connector located towards the front of the Marker next to the fan.
e. Bubble wrap the ends of the disconnected cables.

2. Prepare to remove the marker:

    a. Raise marker by pulling marker lever towards the front of the Platesetter until lever stops, and lift the front of the marker.
    b. Place a 26" by 1" (66 cm x 2.5 cm) piece of tape on the bottom of the laser marker over the slot for the laser light.
    c. Detach the right cover strut on the marker end by removing the cap and pulling the strut off the ball joint.
    d. Detach the strut on the laser end while holding the marker in the upright position by removing the cap and pulling strut off the ball joint.
    e. Fasten the shipping brace to the laser (right) end of the marker with eight screws.

NOTE: If the marker is being repackaged without separating the Imager and Processor modules, the marker must be removed before installing the shipping brace.

    f. Detach the strut from the galvo (left) end of the marker.
    g. Reattach cap to struts.

3. Remove the marker:

    a. Place blue plastic bag and two DESI PAK bags in the marker assembly carton, with the bag laid open.
    b. Using two people, remove the marker from the Platesetter.
    c. Slide the marker assembly off the brass pivot bushing located furthest from the processor section (left) without moving the bushing.
    d. Slide the marker assembly off the brass pivot bushing located on the right without moving the bushing.

4. Place the marker in the carton:

    a. Place the marker assembly in the blue plastic bag, with the laser end placed in the location shown on the drawing that is attached to the bottom of the carton.
    b. Fold the blue plastic bag around marker and tie-wrap shut.
    c. Install foam block in the location shown on the drawing in the marker box.
    d. Place flat cardboard cover with the four Styrofoam pieces facing up over the plastic bag. Seal the carton.
    e. Bubble wrap and tie wrap the marker struts inside the Platesetter.
    f. Reattach the right cover strut by firmly pushing the strut head onto the ball joints and reattaching the caps to lock the strut.

C. Package the Imager:

1. Remove customer supplied power plug. Bubble wrap the end of the power cord.

2. Remove the supply cassette. Bubble wrap the media spools and place in the supply cassette. Secure the shaft to the inside of the supply cassette with tape. Bubble wrap and place in the accessory box.

3. Bubble wrap the two binders containing the manuals, place items in accessory box, and seal it shut.

4. Close the Imager top cover. Place three strips of bubble wrap on top of the front panel. Place two DESI PAK bags on the Imager crate. Roll the Imager up the ramp onto the Imager crate.

5. Support the Imager up off of the wheels by:

    a. Placing the 18" by 6 3/4" (34 cm x 17 cm) wood block, with lip, underneath bottom front of the Imager. The frame must rest on the foam.
    b. Placing the 18" by 6 3/4" (34 cm x 17 cm) wood block underneath the bottom back of the Imager. The frame must rest on the foam.
    c. Placing the two 24" by 6 3/4" (61 cm x 17 cm) wood blocks underneath the bottom sides of the Imager. The frame must rest on the foam.
    d. Attaching all four wood blocks to the crate by using two wood screws in each block.
    e. Replace the front and rear panels.

6. Plastic wrap the entire Imager. Place the foam cap over the Imager. Place the ramp inside the foam cap. Place the 33" (84 cm) -wide plywood with notches, on the front of the crate with the boards facing inside the crate and the notches on the bottom. Place the 33" (84 cm) -wide plywood on the back of the crate with the boards facing inside the crate. Place the two 50" (127 cm) -wide plywood on the sides of the crate with the boards facing inside the crate and flush with the bottom. Screw the top and the sides together. Make sure the top cover and the sides are very secure.

D. Package the Accessories

1. Place the accessory box, marker box and RIP boxes on the crate.
2. Place sides and top on the crate. Screw the top and sides together. Make sure the top and sides are secure.

This page should be filled out on Installation.

Serial Numbers and Factory Settings

Installation Date: _____

Location: _____
_____
_____

Serial Numbers:

Component	Serial #	Model
Imager Unit	_____	_____
Laser Marker Assy	_____	_____
RIP CPU	_____	_____
RIP Monitor	_____	_____

Setup (punch and 2400 dpi values are applicable only if those options are installed):

	Resolution			
	900	1200	1800	2400
Cut Length	_____	_____	_____	_____
Overlap Length	_____	_____	_____	_____
Backup Length (Punch off)	_____	_____	_____	_____
Backup Length (Punch on)	_____	_____	_____	_____
Punch Length (Punch on)	_____	_____	_____	_____
Miniplate Backup Length	_____	_____	_____	_____
Image Power (Processor & Mini Plate)	_____	_____	_____	_____
Image Power (Cassette)	_____	_____	_____	_____
MT Speed	_____	_____	_____	_____

PlateStream 46

Platesetter

Operator Manual

Printware
LEADERS IN COMPUTER TO PLATE

700580 Rev. E

COPYRIGHT NOTICE

This manual is copyrighted and all rights are reserved. Under copyright law, this manual may not be copied, by any means or in any form, in whole or in part, without the written consent of Printware.

Printware, Inc., makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. In addition, Printware reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of Printware to notify any person of such revisions or changes.

© 1997 by Printware, Inc.

IBM and PC are registered trademarks of International Business Machines Corporation.
ZipRip, ZAPrip and Printstyle are trademarks of Printware, Inc.
Macintosh and AppleTalk are registered trademarks of Apple Computer, Inc.
PostScript is a registered trademark of Adobe Systems Incorporated.
Futura is a registered trademark of the Fundicion Typografica Neufville SA.
Times is a registered trademark of the Linotype Company.
Printstyle is licensed to make use of the PostScript® page description language copyrighted by Adobe Systems Inc.

PRINTWARE, INC.
1270 Eagan Industrial Road
St. Paul, MN 55121

Phone: (651) 456-1400

Part Number: 700580 Rev. E

May 9, 2000

The camera-ready master for this manual was generated on a Printware Laser Imaging System and an IBM-compatible PC.

CAUTION! The electronic circuitry inside the Platesetter is very sensitive to damage from electrostatic discharge (ESD). Always follow the ESD protective procedures described in this manual when working on the Platesetter.

FEDERAL COMMUNICATIONS COMMISSION (FCC) NOTICE

Printware Platesetters generate and use radio frequency. If not installed properly, a Platesetter may cause interference to radio and television reception.

Printware, Incorporated, complies with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules. These rules are designed to provide reasonable protection against radio and television interference in a commercial installation.

The user can determine if this equipment is causing interference to radio or television reception by turning the Platesetter off and on. Listed below are measures the user can take to correct the interference:

a. Reorient the receiving antenna.

b. Relocate the Platesetter with respect to the receiver.

c. Move the Platesetter away from the receiver.

d. Plug the Platesetter into a different outlet so the Platesetter and receiver are on different circuits.

If these measures do not correct the interference problem, the user should consult the dealer or an authorized technician for additional suggestions.

CONTENTS

Chapter 1: General Information

Introduction..... 1-2
Features Overview 1-5
Operator Safety..... 1-7

Chapter 2: Control Panel

The Control Panel..... 2-2
Control Panel Menus and Functions..... 2-4

Chapter 3: Preparing for Operation

Preparing to Make Plates..... 3-2
Filling the Processor Tanks..... 3-3
Loading Plate Media..... 3-5
Imaging Plates..... 3-7
Miniplate Option..... 3-9
Film Option..... 3-10
Loading Optional Film Media..... 3-10

Chapter 4: Operating the Platesetter

Controlling Image Quality..... 4-2
Adjusting Exposure 4-2
Responding to Control Panel Error Messages..... 4-3

Chapter 5: Supplies

Introduction.....5-2
Recommended Consumables.....5-3

CONTENTS

Tips on Supplies.....5-4

Chapter 6: Preventive Maintenance

Introduction.....6-2
Maintenance Procedures.....6-3

Chapter 7: Troubleshooting

Print Quality Troubleshooting.....7-2
General Troubleshooting.....7-7
Clearing Media Path.....7-10
Calling for Service.....7-12

Appendix A: Specifications.....A-2
Appendix B: Calibration.....B-2
Appendix C: Halftoning and Screening.....C-2

CHAPTER 1

GENERAL INFORMATION

Introduction

The Printware PlateStream 46 Platesetter is a compact, high resolution digital Platesetter for a range of small-format printing applications. Plates are exposed using a patented laser imaging system, and automatically processed. Figure 1-1 illustrates a flowchart of the platemaking process.

The Platesetter is controlled by a Raster Image Processor (RIP); several different RIP options are available, depending on the most common type of work to be done. The system is driven by the host computer on which the operator composes the text and graphics to be imaged. Once the print job has been composed on the host computer, it is sent to the RIP, where it is prepared for imaging. The rasterized file is then sent to the Platesetter where the file is imaged onto a plate. Figure 1-2 illustrates the basic system set-up.

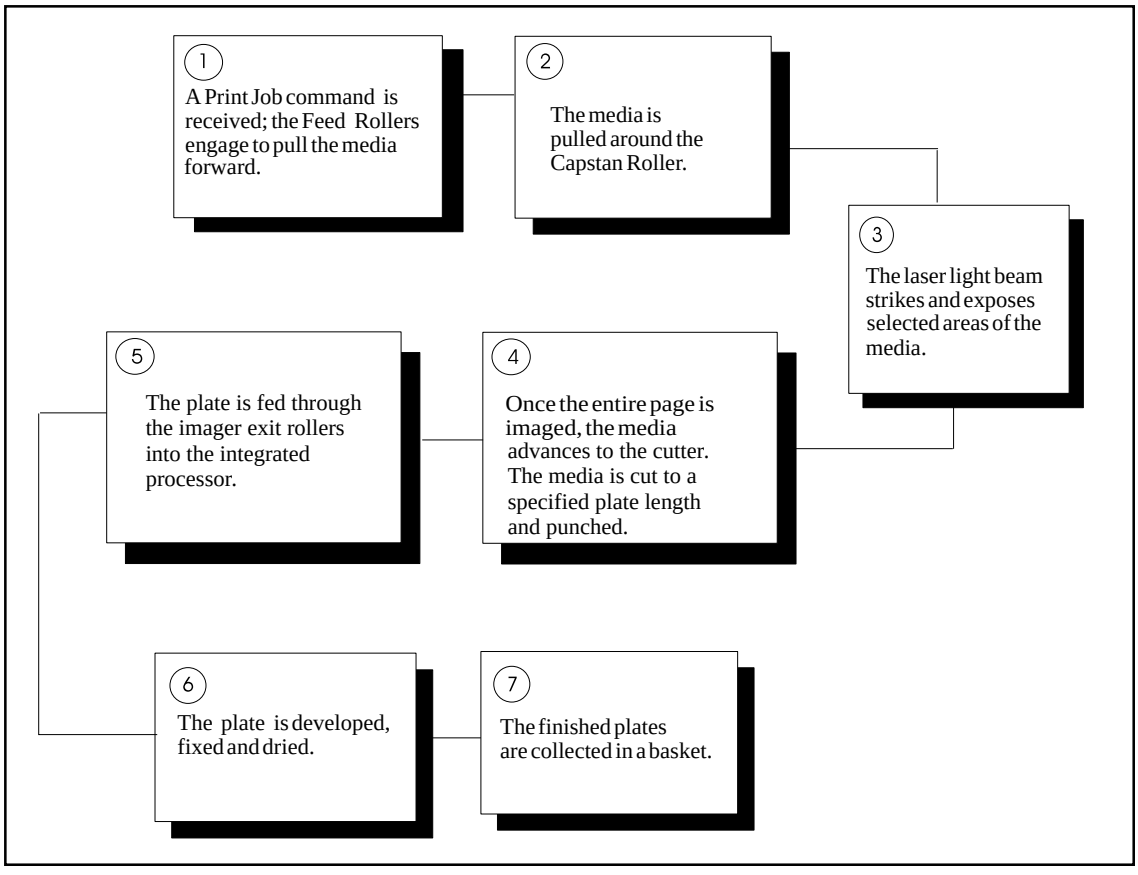

1
A Print Job command is received; the Feed Rollers engage to pull the media forward.
2
The media is pulled around the Capstan Roller.
3
The laser light beam strikes and exposes selected areas of the media.
4
Once the entire page is imaged, the media advances to the cutter. The media is cut to a specified plate length and punched.
5
The plate is fed through the imager exit rollers into the integrated processor.
6
The plate is developed, fixed and dried.
7
The finished plates are collected in a basket.

Figure 1-1 Flowchart of the Platemaker Process

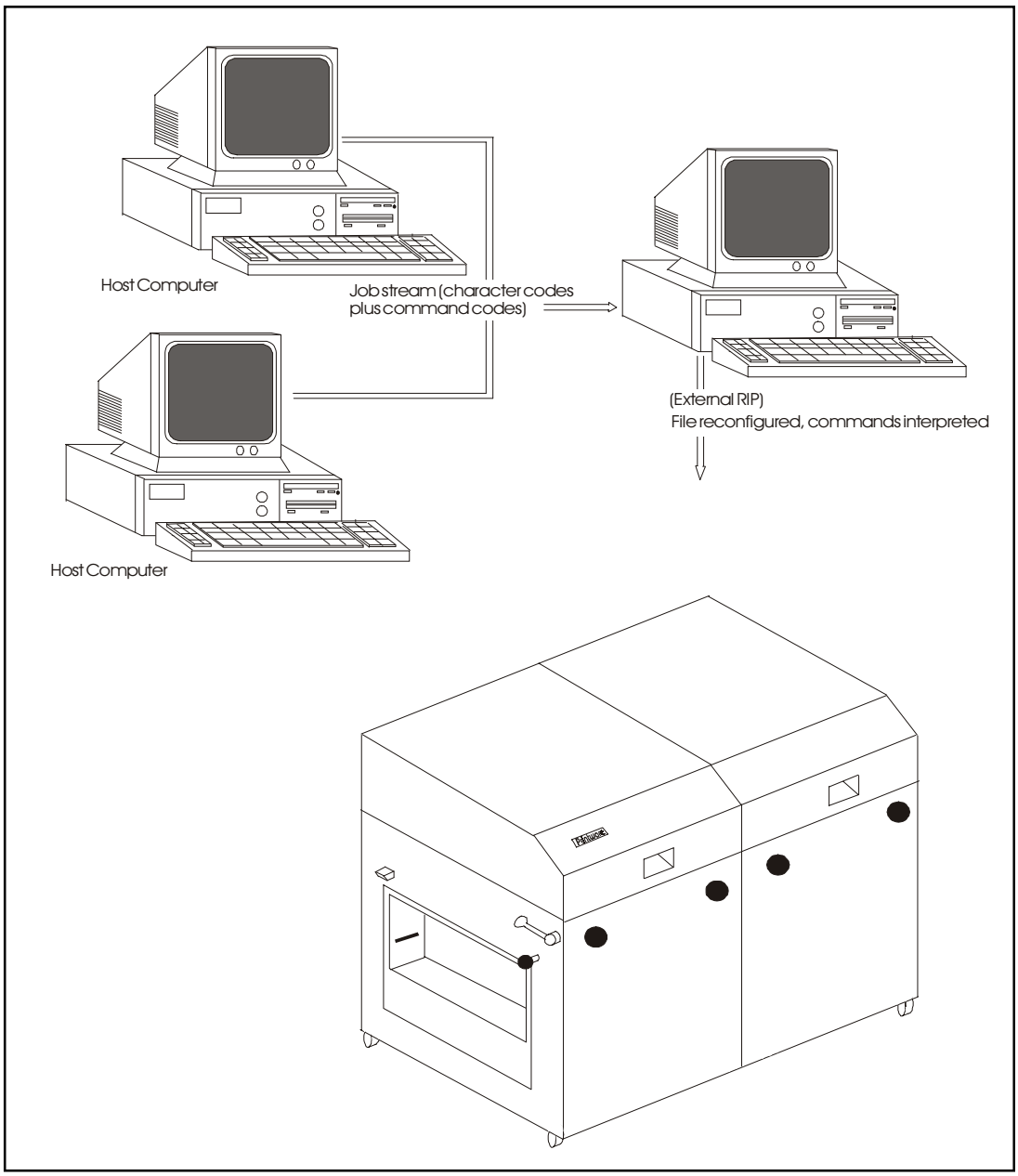


Figure 1-2. Interface Between the Host Computer, RIP, and PlateStream 46

Figure 1-3 illustrates the Platesetter media path. It uses a four-step photographic process:

1. Imaging — The laser light beam sweeps across the emulsion side of the plate material as it passes the laser marker unit. The data generated by the RIP turns the laser on and off. When the laser is turned on, the portion of the plate exposed to the laser sweep is imaged (black); the portions of the media not exposed to the laser remain clear/or silver.

During imaging, the Start Of Scan (SOS) sensor on the marker unit counts the number of scan lines being imaged on the plate, at the user-selected resolution — 900, 1200, 1800, or 2400 scan lines per inch. Once the correct number of scan lines have been imaged, the marker unit keeps the laser turned on to expose the trailing edge of the plate.

Once the entire page is imaged the media advances to the cutter. The cutter cuts the media to a specified plate length. After the media is cut, it is fed between the upper and lower imager exit rollers and into the integrated processor.

2. Activating (Developing) — a base chemical process which etches the image on the media. This is done by the 'activator' on silver-halide plate material.

3. Stabilizing (Fixing) — a slightly acidic chemical process which stops the developing. This is done by the 'stabilizer' on silver-halide plate material.

4. Drying — air drying of the processed media. Unless another file is sent immediately, the Platesetter returns to idle mode. The feed, capstan, and imager exit motors are shut off. The processor transport motor and dryer are also shut off.

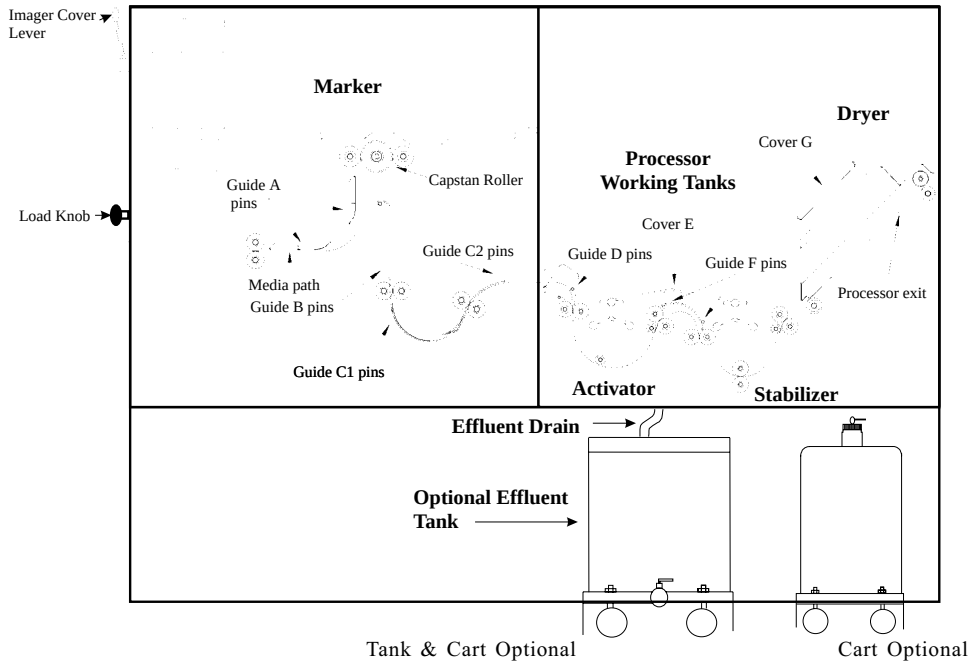


Figure 1-3. Media Path of the PlateStream 46 Platesetter

Features Overview

Figure 1-4 illustrates the following features:

I/O Panel

The I/O panel is located on the bottom rear of the Platesetter. This I/O panel is used to connect the Platesetter to an external RIP.

High Speed

The Platesetter images plates at a rate up to 120 plates per hour and up to 36 inches per minute (91 cm/min). Plates emerge right-reading for easy proofing and final plate checks.

The Platesetter can image any width from 9" to 18.1" (22.9 to 46 cm). Plates can be any length from 12" to 27" (30.5 to 56 cm). The maximum roll length is 275' (84 M).

Control Panel

The control panel is an applet on the RIP. The control panel keys allow you to perform a number of adjustment and diagnostic functions, and the 8 x 40 character liquid crystal display (LCD) screen displays status, error messages, and function menus.

Power Switch

The power switch is located in the rear of the Platesetter.

Options

Film — With this option, the Platesetter can image film and load a take-up cassette for off-line processing.

Miniplate —With this option, the Platesetter will impose multiple jobs shorter than the minimum plate length.

Punch—With the PunchStream[23] integrated punch option, the Platesetter will automatically punch the plate.

2400 dpi—The high resolution option, allows imaging 2400 dpi, especially useful for imaging film.

Infrared — With this option, the Platesetter will image Infrared (780 nm) plate material.

Effluent Tank —This option eliminates the need for direct plumbing of chemical effluence.

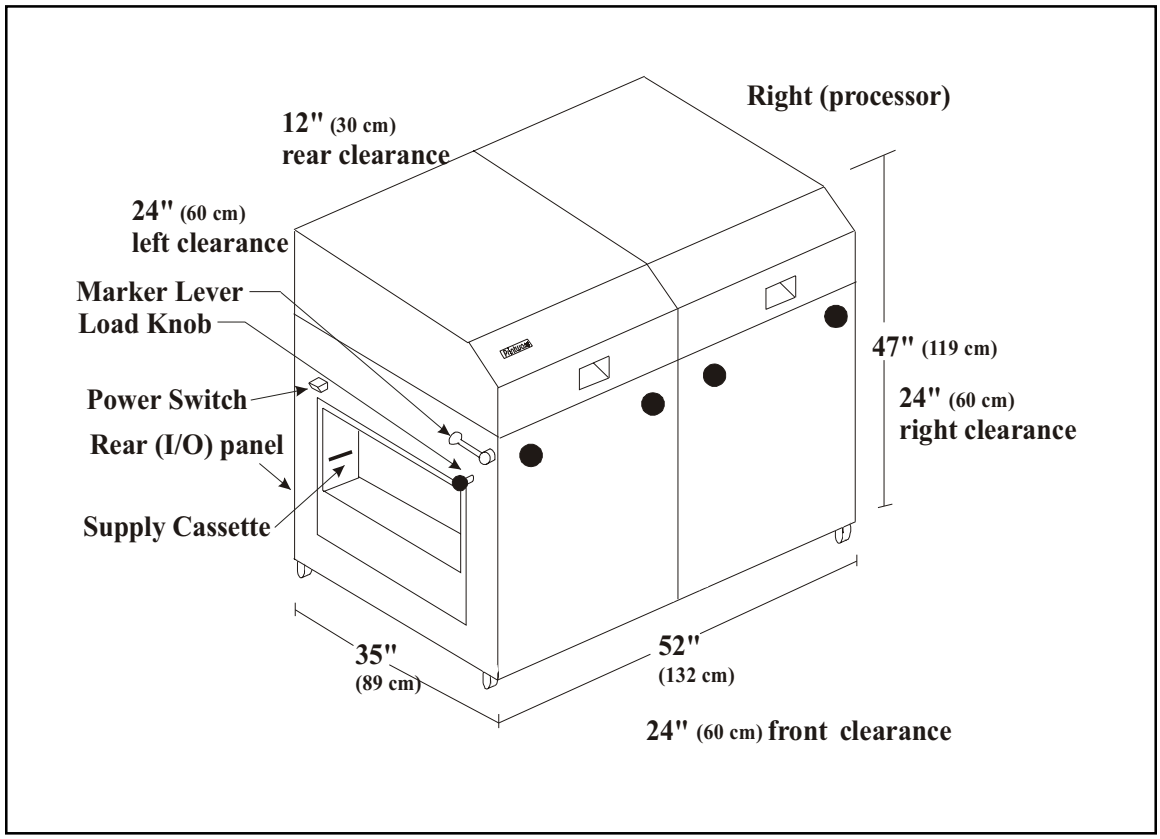


Figure 1-4. Features of PlateStream 46 Platesetter

Operator Safety

The Printware Platesetter has been certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard.

This standard is in accordance with the Radiation Control for Health and Safety Act of 1968. A Class 1 certification means the Platesetter does not produce hazardous laser radiation.

The laser light produced inside the Platesetter is completely confined within protective housings and external covers. The laser beam cannot escape from the Platesetter during any phase of user operation, provided the user follows the operating instructions specified in this manual. A warning label is attached to the bottom of the laser marker unit. This label is visible whenever the media path hood is open.

The Center of Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. Compliance is mandatory for products marketed in the United States.

Always follow these basic safety rules when using the Printware Platesetter:

1. Read this manual before using the Platesetter.

2. Do not remove protective housings or external covers except as specified in this manual.

3. Do not disassemble the Platesetter or try to repair it yourself, other than as specified in the **Preventive Maintenance** and **Troubleshooting** sections of this manual. Call an authorized service technician for necessary repair.

4. Plug the power cord into a 3-conductor grounded (earthed) outlet only. Never ground the cord to a gas pipe or a water pipe. Keep the cord away from hot surfaces. Avoid using an extension cord.

5. Use caution when disconnecting any electrical connector within the Platesetter. Do not disconnect electrical components with the Platesetter turned on.

6. Be extremely careful when working on the Platesetter with the machine turned on and the top cover open. Notice the warning label attached to the underside of the laser marker unit.

7. Always read and follow all label instructions on supplies carefully. Dispose of used supplies and containers appropriately.

8. Use caution when working on or around rollers within the Platesetter with the power on. Be especially careful when wearing loose-fitting sleeves or a tie. Follow similar precautions when working on or around the cutter.

9. Do not operate the Platesetter if any part of it is damaged, or if any part has been dropped, until you have it checked by an authorized service technician.

10. When turning OFF the Power switch, be sure to do it after the machine cycling has come to a complete stop.

11. Use only supplies designated by Printware with your Platesetter. Consult the recommended supplies list that came with your Platesetter system. All supplies should be stored in a cool, dry area. The use of low grade or improperly stored media will result in print quality problems.

12. There is a lithium battery in the battery-backup RAM on the laser controller board (U17 on 522980-XXX), mounted to the top of the laser marker unit. This lithium battery is not replaceable. Dispose of, or recycle, all printed circuit boards properly.

WARNING! Performing procedures, adjustments, or using controls in a way other than those specified in this manual can cause hazardous laser radiation exposure, electrical hazards, or damage to the Platesetter.

CHAPTER 2

The Control Panel

The control panel is an applet that runs on the RIP. The control panel program starts automatically when the RIP is powered up. Figure 2-1 illustrates a flowchart of the control panel menus.

The panel consists of an 8 x 40 character display which shows status messages and menu options, and the following 18 keys:

- an **ON**/+ key
- an **OFF**/- key
- an **ESC** key
- an **ENTER** key
- 4 arrow keys
- 10 numeric keys, numbered 0-9

These keys allow you to perform a variety of functions. To select an item move the cursor over the corresponding numeric key with the mouse and push the left mouse button to "press" the key. To scroll through the choices of the selected item press the ‘ON/+’ or ‘OFF/-’ keys. To change numbers in a selected item press the numeric keys or press the ‘ON/+’ to increase the number and press the ‘OFF/-’ to decrease the number. To exit a selected item without saving changes press the ‘ESC’ key. To save changes to a selected item press the ‘ENTER’ key. If a key is pressed that has no effect, the control panel will emit a beep.

The PC keyboard may also be used directly to operate the Control Panel. To minimize the Control Panel, click on the lower right corner of the Control Panel. This will leave the display, but eliminate the keypad. **DO NOT CLOSE** the Control Panel program (upper right corner box) while the imager is operating. This will cause the interface to crash and the imager to malfunction.

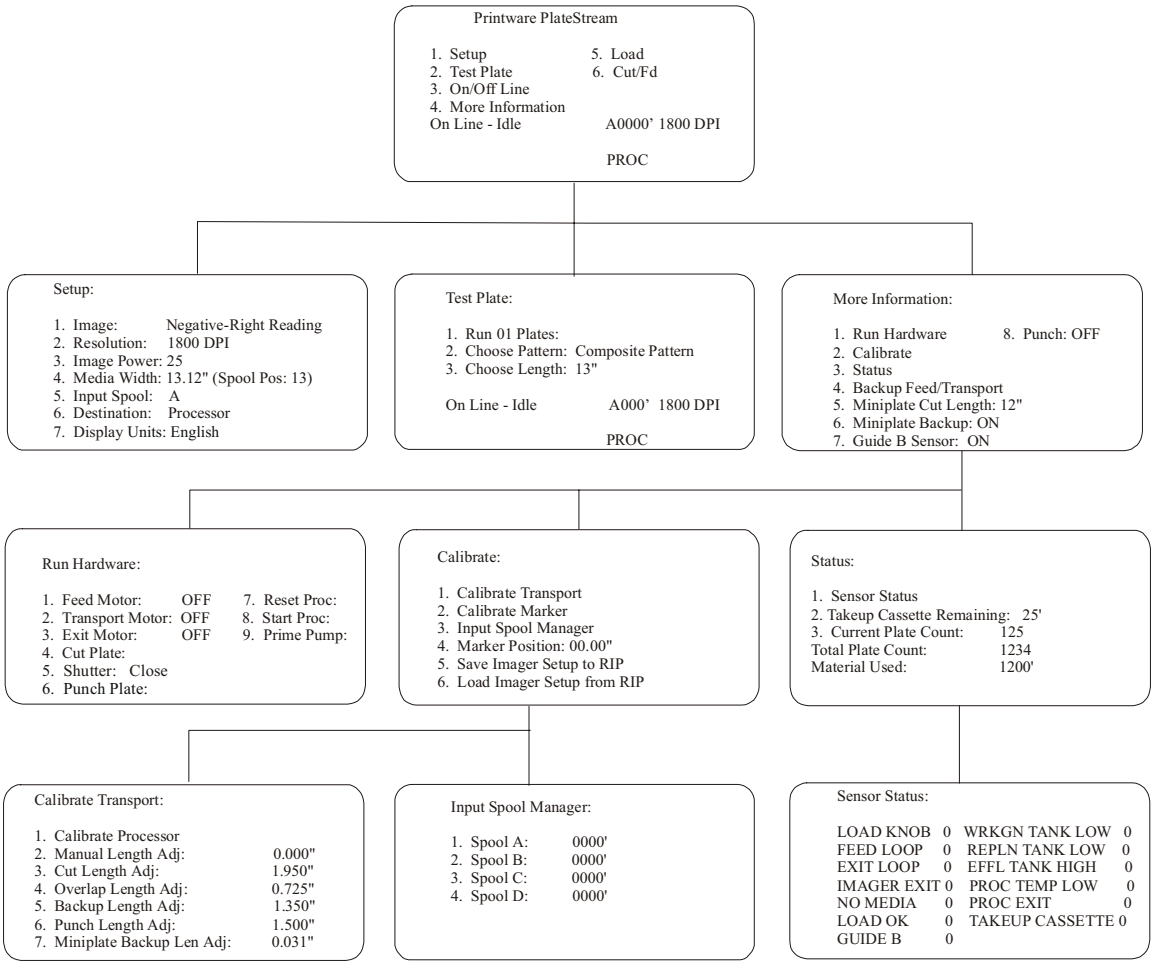


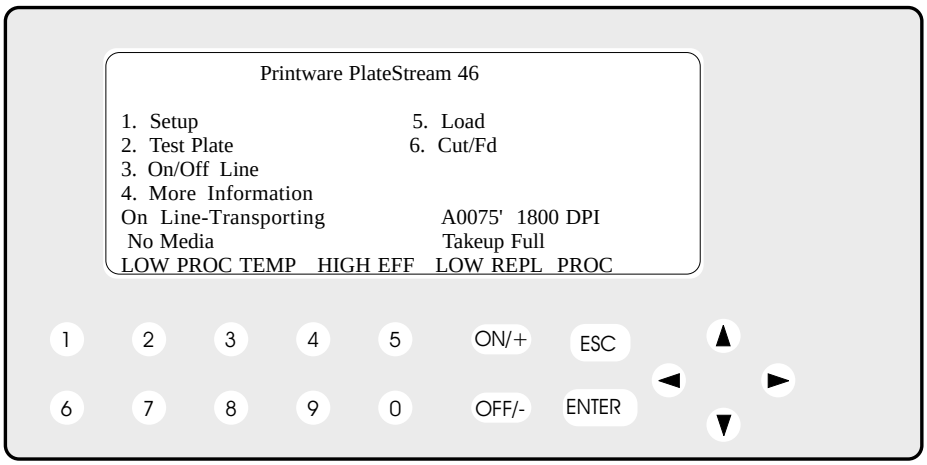
Figure 2-1 Control Panel Functional Flowchart

The Power-Up Sequence

When the Platesetter power switch is turned on, the Platesetter performs a sequence of tests of its internal components. While the Platesetter is performing these tests, the control panel display will show a series of status messages indicating the progress of the self-tests. If an error message is displayed, correct the error according to the instructions in the **Responding to Control Panel Error Messages** section in Chapter 4. If the display stops at any initialization point for more than two minutes, turn off the Platesetter and call for authorized service.

When the power sequence is successfully completed, the display will show the Main Menu screen.

Main Menu



1. Setup – Provides access to the Setup menu.

2. Test Plate – Provides access to the Test Plate menu.

3. On/Off – Sets the Platesetter to either on line or off line. The Platesetter must be on line in order to accept print jobs from the RIP. The Platesetter cannot be set to On line if there is an error present. Advancing the display to any of the sub-menus automatically takes the Platesetter off line.

4. More Information – This selection provides access to several menus.

5. Load – This selection loads the media.

6. Cut/Fd – This selection cuts and feeds the media into the processor for the Miniplate option. This selection cuts and feeds the media into the takeup cassette for the film option.

7. The bottom three lines (lines 6-8) of the Main Menu and Test Plate Menu display the current state of the Platesetter and any error conditions. Line 5 displays the marker state only if the marker is not ready to print.

Line 5:

———

Scan point: 10 = Current marker state, displayed only during a marker error, or while the marker is either calibrating or initializing

Line 6:

————————

On Line - Idle = Current imager state, the messages displayed as a single plate is fed through the Platesetter in processor mode are:

On Line – Idle	=	Imager ready to start imaging, imager and processor are idle, except, possibly, for the last several inches of the last plate exiting the processor
On Line – Busy	=	Imager communicating with the RIP
On Line – Backing Up	=	Backing up leader of plate from cutter to start of image point
On Line – Marker Hold	=	Marker getting ready to image
On Line – Imaging	=	Imaging current plate
On Line – Image Leader	=	Imaging leader of next plate
On Line – Advancing	=	Advancing plate to cutter
On Line – Cutting	=	Cutting plate
On Line – Punching	=	Punching Plate

On Line – Transporting = Moving media out of the imager

On Line – Ready Pause = 0.5 sec pause between plates

On Line – Ready/Trans = Imager ready to start imaging , plate (s) still in imager

On Line – Ready/Proc = Imager ready to start imaging, plate (s) in processor only

On Line – Feeding = Moving media into or through imager

A0075' = Approximate number of feet of media left on input spool "A" (if length of media on the spool was entered when the spool was loaded)

1800 dpi = Current resolution

Line 7:

_____

NO MEDIA = 'No media' detected at sensor closest to input spool

LOW WORKING = Either or both of the processor working tanks are low

TAKEUP FULL = The takeup cassette counter has counted down to 0 (starts at 26' or 8 m when media is loaded, may also be manually set)

INTERLOCK OPEN = The marker is in the raised position

Line 8:

_____

LOW PROC TEMP = The processor is not up to specified temperature yet

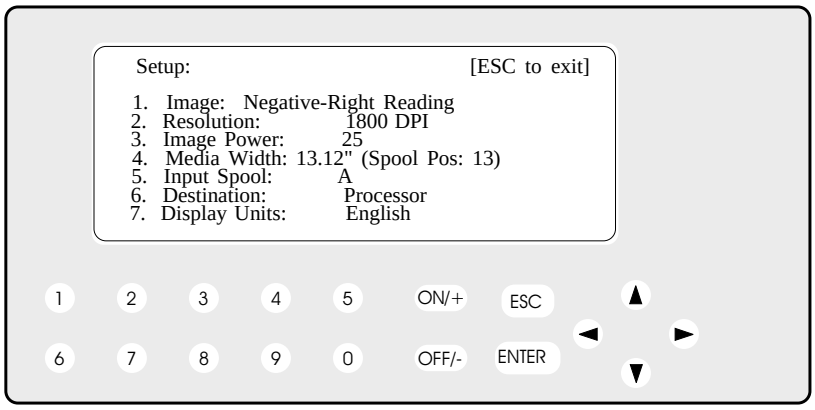
HIGH EFF = The effluent tank is full

LOW REPL = Either or both of the replenisher tanks are empty

PROC = Imager destination (lower right corner of operator panel):

PROC	=	Imager is in processor mode
MINI	=	Imager is in miniplate mode, there are No accumulated miniplates in the imager
MINI3	=	Imager is in miniplate mode, there are 3 accumulated miniplates in the imager (if there are more than 9 accumulated miniplates, the digit changes to a '+')
CAS	=	Imager is in cassette mode, and the media has not yet been loaded
CAS00	=	Imager is in cassette mode, the media has been loaded, but no plates have been imaged yet
CAS21	=	Imager is in cassette mode, and 21 plates have been imaged so far

Setup Menu



1. Image — This selection sets the type of imaging for the different types of media. The choices are: Positive or Negative Wrong Reading, and Positive or Negative Right Reading. These attributes can be set separately for Cassette mode and Processor/Miniplate mode. For example, cassette mode could be set for Positive Wrong Reading, the destination could be changed (see item 6 below), and Processor set for Negative Right Reading. Cassette mode would remain Positive Wrong Reading in this example.

2. Resolution — Sets the resolution of plates imaged from the control panel. The choices are 900, 1200, 1800, or 2400 dpi. Note that this menu only affects test plates sent from the control panel; the resolution of plates sent from the front end or RIP are set by the RIP. The message 'Not allowed, Imager and/or RIP busy' appears if jobs are running while attempting to change resolution.

3. Image Power — Sets the image power (laser intensity). Increasing image power increases D_{max} or Density, while decreasing image power reduces D_{max}. Image power can be set separately for each combination of destination (see item 6) and resolution (see item 1). Thus up to eight image power settings can be stored for the possible combinations of two destinations (Processor/Miniplate or Cassette) and four resolutions. This allows a different image power to be set for film in the Cassette mode compared to plate material in the Processor mode, for example. Optimal image power settings also change with resolution.

4. Media Width: xx.xx" (Spool Pos: yy) — Media Width is the exact width, entered by the operator, from 9.00" to 18.10" (22.90 cm to 46.00 cm). Spool Pos is automatically calculated from Media Width, and indicates the position to set the spool or cassette. Spool position is set at the media width in inches, rounded to the nearest inch, from 9 to 18. Media Width is set independently for each of the Input Spools (see #5 below), eliminating the need to reset image width every time the spool is changed.

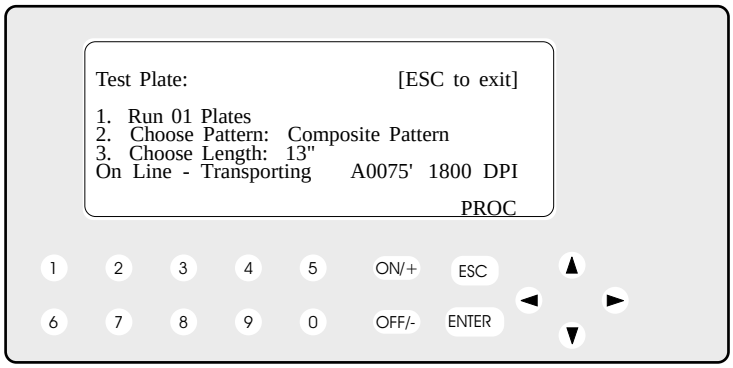
5. Input Spool — Selects the input spool. The choices are: A, B, C, or D. A different default spool can be set for Processor/Miniplate and Cassette modes. For example, Spool A could be set as the default in Processor/Miniplate mode to be used for plate material, and Spool B as default in Cassette mode to be used for film. If the destination is switched back from Cassette to Processor or Miniplate, the Input Spool would automatically default back to Spool A. The media remaining for the selected cassette decreases as media is imaged (see **Spool Manager** later in this chapter). Each spool can hold up to 280' (85 m); each spool's counter can be reset after reloading. Input spool selection will be displayed in front of the feet remaining in the main menu.

6. Destination — Sets the output destination for the imaged media. Choices are: 'Processor,' 'Processor Miniplate' with the Miniplate option, and 'Cassette' with the film option. For a standard PlateStream 46 with no options installed, Processor is the only destination.

7. Display Units – Toggles between English and Metric display units.

NOTE: This manual generally refers to English display units with Metric units in parentheses where applicable.

Test Plate Menu



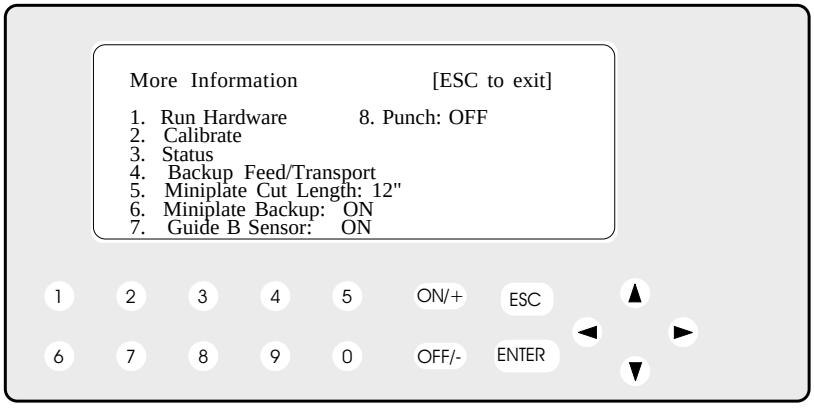
1. Run *nn Plates* — Sets the number of plates from 1 to 99.
Pressing **ENTER** sets the specified number of plates to be printed. Pressing ENTER again causes the specified number of plates to be printed. As each plate is printed, the displayed number will decrement by 1. Printing can be interrupted by pressing the **ESC** key. If printing is interrupted, the current plate will be imaged, the Platesetter will not print the remaining plates, the displayed number will return to its selected value. If printing is not interrupted, then once the specified number of plates have been imaged the displayed value will return to its selected value.

2. Choose Pattern — This selection sets the pattern. The choices are:

Composite Pttrn	Half Blk/Wht
All Black Plate	Wide Vert Lines
Thin Vert Lines	Wide Horiz
Thin Horiz	Small White Sqs
Small Black Sqs	Large White Sqs
Large Black Sqs	Dark Gray Tone
Light Gray Tone	Press Pattern
Horz Line Res	Screen
All White Plate	Calib Screen

3. Choose Length — Sets the length of the test plate. The allowable range is 12" to 27" in processor mode and 2" to 27" in cassette or Miniplate modes.

More Information Menu


More Information [ESC to exit]
1. Run Hardware
2. Calibrate
3. Status
4. Backup Feed/Transport
5. Miniplate Cut Length: 12"
6. Miniplate Backup: ON
7. Guide B Sensor: ON
8. Punch: OFF
1 2 3 4 5 ON/+ ESC
6 7 8 9 0 OFF/- ENTER

1. Run Hardware — Provides access to the Run Hardware menu.

2. Calibrate — Provides access to the Calibrate menu.

3. Status — Provides access to the Status menu.

4. Backup Feed/Transport — Turns the capstan and feed motors on and backs up the media six inches. This is used to clear media wrapped around the capstan roller (see **Clearing Media Path** in chapter seven). To stop capstan motor, press '**ESC**' or '**OFF**/-' key.

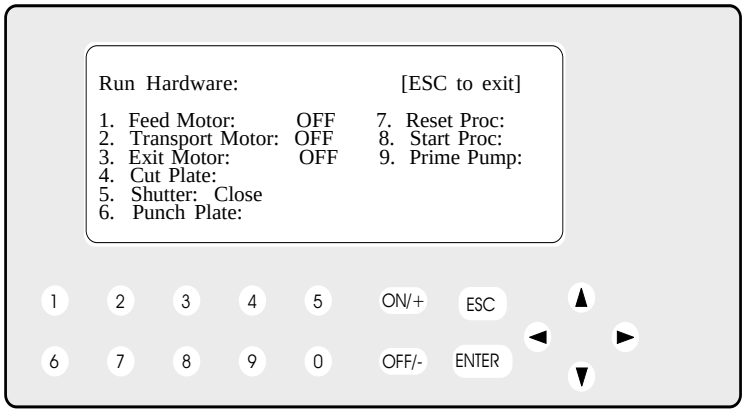
5. Miniplate Cut Length:—(Only with Miniplate option installed) Cuts the plate if accumulated Miniplate length exceeds this value. Values are integer inches—12", 13", 14", 15", 16", 17", 18", 19", 20", 21", 22", or 23". The 23" setting cuts all plates greater than 23".

6. Miniplate Backup:—Enables calibration or elimination of the gap between jobs in Miniplate mode (see **Physical Calibration** in the INSTALLATION GUIDE). It also adjusts the gap between jobs in Cassette Mode.

7. Guide B Sensor: Turns the Guide B sensor On/OFF. The sensor should be ON to detect jams unless the sensor is damaged.

8. Punch:—(Only if punch option installed) turns the punch on and off.

Run Hardware Menu


Run Hardware: [ESC to exit]
1. Feed Motor: OFF
2. Transport Motor: OFF
3. Exit Motor: OFF
4. Cut Plate:
5. Shutter: Close
6. Punch Plate:
7. Reset Proc:
8. Start Proc:
9. Prime Pump:
1 2 3 4 5 ON/+ ESC
6 7 8 9 0 OFF/- ENTER

1. Feed motor — Turns on or off the feed stepper motor.

2. Transport motor — Turns on or off the capstan motor.

3. Exit motor — Turns on or off the Imager Exit motor.

4. Cut Plate — Cycles the cutter.

5. Shutter — Opens and closes the shutter.

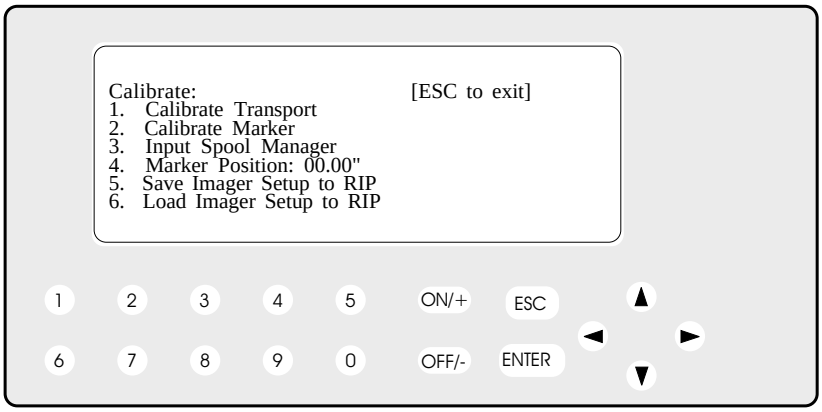
6. Punch Plate — Cycles the Punch

7. Reset Proc — Stops the processor and resets all of the counters.

8. Start Proc — Starts the processor to test for functionality of this section.

9. Prime pump — Turns on the processor pump for approximately five minutes.

Calibrate Menu



1. Calibrate Transport—Provides access to the Calibrate Transport menu.

2. Calibrate Marker—Sets the marker to perform a full calibration the next time the machine is powered up.

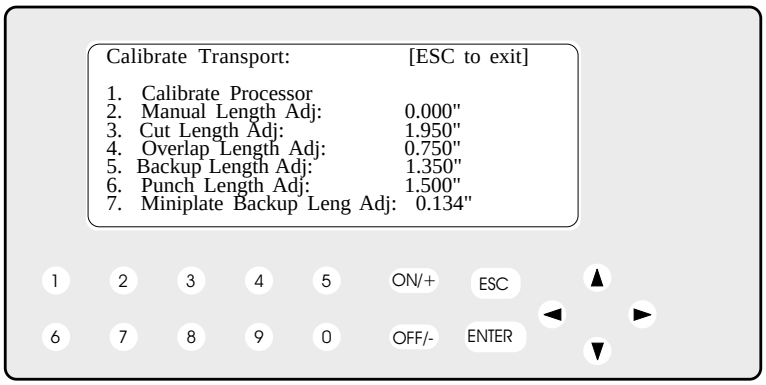
3. Input Spool Manager—Provides access to the Spool Manager menu.

4. Marker Position—Adjusts the side-to-side image position up to ±0.05" (±0.13 cm) (Increasing the value moves the image away from the operator side, decreasing the value moves the image towards the operator side) to accommodate the physical position of the marker.

5. Save Imager Setup to RIP—Saves the imager setup data to the RIP hard drive.

6. Load Imager Setup from RIP—Reloads the Imager setup data into the Imager from the RIP hard drive.

Calibrate Transport Menu



1. Calibrate Processor — Runs a plate which calibrates the processor exit sensor for the current resolution (dpi) setting. Since Platesetter speed varies with resolution, the processor exit sensor must be calibrated at the factory. If the control panel error displays 'Media didn't exit imager' or 'Media didn't exit processor' calibrating the processor is one of the possible solutions. Ensure that destination is set to "Processor," then Calibrate the processor by pressing **'ENTER'**. The Platesetter must be in **Processor mode** (not cassette or Miniplate mode) to calibrate the processor.

For more details on menu items 2 - 7, see **Physical Calibration** in the INSTALLATION GUIDE.

2. Manual Length Adj: — Incremental corrections to obtain the correct plate length. The length change displayed is reset to '0' after pressing enter. There are independent adjustments for each resolution. At 900 dpi, the manual length is adjustable in 0.006" (0.015 cm) increments, at 1200 dpi in 0.004" (0.01 cm) increments, 1800 dpi in 0.003" (0.08 cm) increments and at 2400 dpi in 0.002" (0.005 cm) increments.

3. Cut Length Adj:—Sets the length of the trailing edge of the plate.

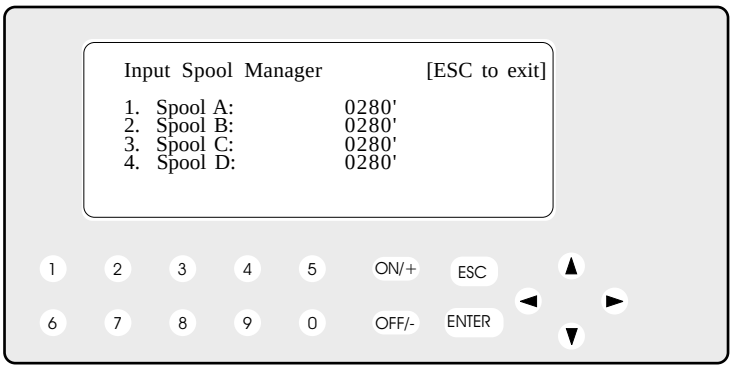
4. Overlap Length Adj:—Sets the length of plate that is double exposed on the leading edge.

5. Backup Length Adj:—Adjusts the length of the leader (there is a second set of values with the punch option installed).

6. Punch Length Adj:—(Only with the punch option installed) Adjusts the punch position on the plate.

7. Miniplate Backup Length Adj:—(Only with the Miniplate option installed) Calibrates or eliminates the gap between jobs in Miniplate mode.

Input Spool Manager Menu



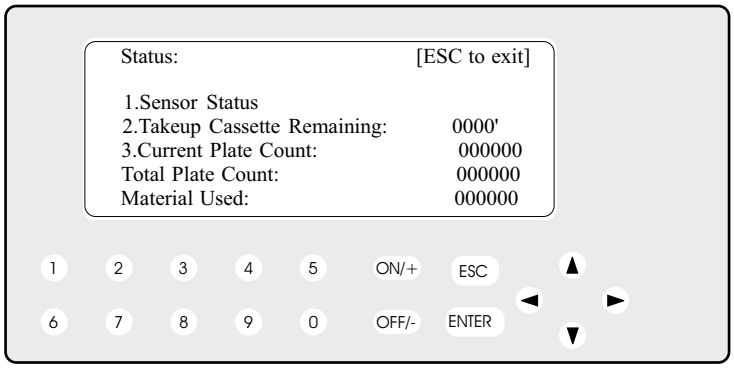
1. Spool A: — Sets the amount of material in spool A (up to 280' or 85 m).

2. Spool B: — Sets the amount of material in spool B.

3. Spool C: — Sets the amount of material in spool C.

4. Spool D: — Sets the amount of material in spool D.

Status Menu


Status: [ESC to exit]
1.Sensor Status
2.Takeup Cassette Remaining: 0000'
3.Current Plate Count: 000000
Total Plate Count: 000000
Material Used: 000000
1 2 3 4 5 ON/+ ESC
6 7 8 9 0 OFF/- ENTER

1. Sensor Status — This selection provides access to the Sensor Status menu.

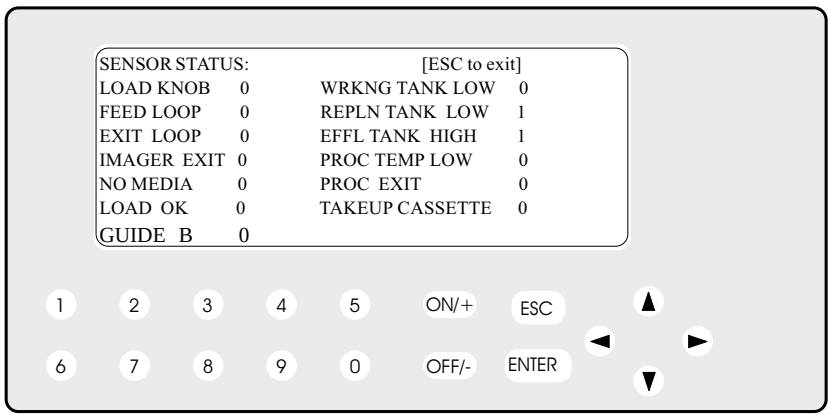
2. Take-up Cassette Remaining — Shows the amount of media capacity remaining in the take-up cassette, in feet. The maximum allowable amount of material is 26'. The Take-up Cassette Remaining value is automatically decreased from 26' as media is used. When this value reaches **'0'**, the Platesetter will stop running.

3. Current Plate Count — This selection clears and displays the current plate count.

Total Plate Count — Displays the total number of plates imaged by the Platesetter.

Material — Displays the total number of feet of material run through the Platesetter.

Sensor Status Menu



The Sensor Status menu indicates the current digital status of all Platesetter sensors. Explanations of all the sensor indications are shown below. This menu is provided primarily for trained technician use.

LOAD KNOB — This sensor is activated when the load knob is pushed. A '**0**' indicates the load knob is pushed in; '**1**' indicates the load knob is pulled out.

FEED LOOP — Indicates the status of the service loop sensor in the feed area of the Platesetter. '**1**' indicates that a loop is formed, '**0**' indicates that a loop is not present.

EXIT LOOP — Indicates the status of the exit loop sensor in the exit section of the Imager. '**1**' indicates that a loop is formed, '**0**' indicates that a loop is not present.

IMAGER EXIT — Indicates the presence of media at the imager exit. A '**1**' indicates that media is present (*e.g.,* during imaging). A '**0**' means the sensor is clear — this is the normal idle condition.

NO MEDIA — Identifies the amount of media in the spool as okay or none. A '**0**' indicates that the media supply is empty, '**1**' indicates that the amount is sufficient.

LOAD OK — Indicates the status of media loading. A '**1**' indicates the media is loaded, a '**0**' indicates the media is not loaded.

GUIDE B — Indicates the presence of media at Guide B. A '**1**' indicates that media is present (*e.g.,* during imaging). A '**0**' indicates the sensor is clear. This is the normal idle condition.

WRKNG TANK LOW — This sensor monitors the solution level in the working tanks in the processor. A '**0**' indicates the current level is okay; a '**1**' indicates a low solution level in one or both of the tanks.

REPLN TANK LOW — This sensor monitors the solution level in the replenishment tanks underneath the processor. A '**0**' indicates the current level is okay; a '**1**' indicates a low solution level in one or both of the tanks.

EFL TANK HIGH — This sensor monitors the level of spent solution in the optional effluent tank underneath the processor. A '**0**' indicates the current level is okay; a '**1**' indicates the tank needs to be emptied.

PROC TEMP OK — The processor Activator Temperature sensor monitors the temperature of the Activator bath. A '**0**' indicates that the current temperature is okay; a '**1**' indicates that the bath is still warming up, or that there is a problem with the heater.

PROC EXIT — Indicates the presence or absence of media at the processor exit sensor. A '**1**' indicates that media is present (*e.g.,* during imaging). A '**0**' indicates the sensor is clear. This is the normal operating condition.

TAKE-UP CASSETTE — Identifies the presence of an optional film takeup cassette. A '**1**' indicates the film takeup cassette is present. A '**0**' indicates that the film takeup cassette is not present.

CHAPTER 3

Preparing to Make Plates

Overview

The following information explains how to prepare the Platesetter for a print job. Refer to your host computer operator manual and the RIP operator manual for further detail on connecting and operating these devices with the Platesetter.

Introduction

Before making a plate, the Platesetter must be:

- Loaded with the correct type of plate media (see chapter 3 in the section **Loading Plate Media).**
- Connected to the RIP; I/O panel is located on the bottom rear of the machine.
- Ready to accept a print job (Main Menu displayed on the control panel, On-Line state, no error conditions).
- The integrated processor must be filled to proper levels (see chapter 3 in the section **Filling the Processor Tanks**).

Filling the Processor Tanks

Overview

Fill the processor working tanks and replenishment tanks as needed. Follow manufacturer's safety instructions. The message 'LOW REPL' will appear on the lower half of the control panel Main Menu when one or both of the replenishment tanks are low on chemistry. The message 'LOW WORKING' will appear on the lower half of the control panel Main Menu when one or both of the processor working tanks are low on chemistry. The message 'HIGH EFF' will appear on the lower half of the control panel Main Menu when the optional effluent tanks is full. Once per week, remove all chemistry and clean the processor section as described in Chapter 6, **Preventive Maintenance**.

Procedure

1. Open the top cover and bottom front doors. Remove cover E. Gently roll out cart(s) from underneath the processor. (See figure 3-1).

2. If necessary prepare the Activator and Stabilizer solutions in the plastic replenishment tanks following the manufacturer's instructions.

3. Remove probes from the replenishment tanks by unscrewing the white cap. Fill the processor working tanks inside the Platesetter and the replenishment tanks with the proper chemistry. Reinstall the probes into the replenishment tanks. Make sure the activator tanks are filled with activator and the stabilizer tanks are filled with stabilizer. Place cover E over processor working tanks. Close the top cover.

4. Remove the probe and vinyl hose from the optional effluent tank. Remove the optional effluent tank and empty it. Be sure to dispose of or recycle the spent chemistry in accordance with local regulations.

5. Reinstall the probe and vinyl hose into the optional effluent tank. Reinstall the optional effluent tank and close the tank cover.

6. Gently push the cart(s) under the processor and close the bottom front doors.

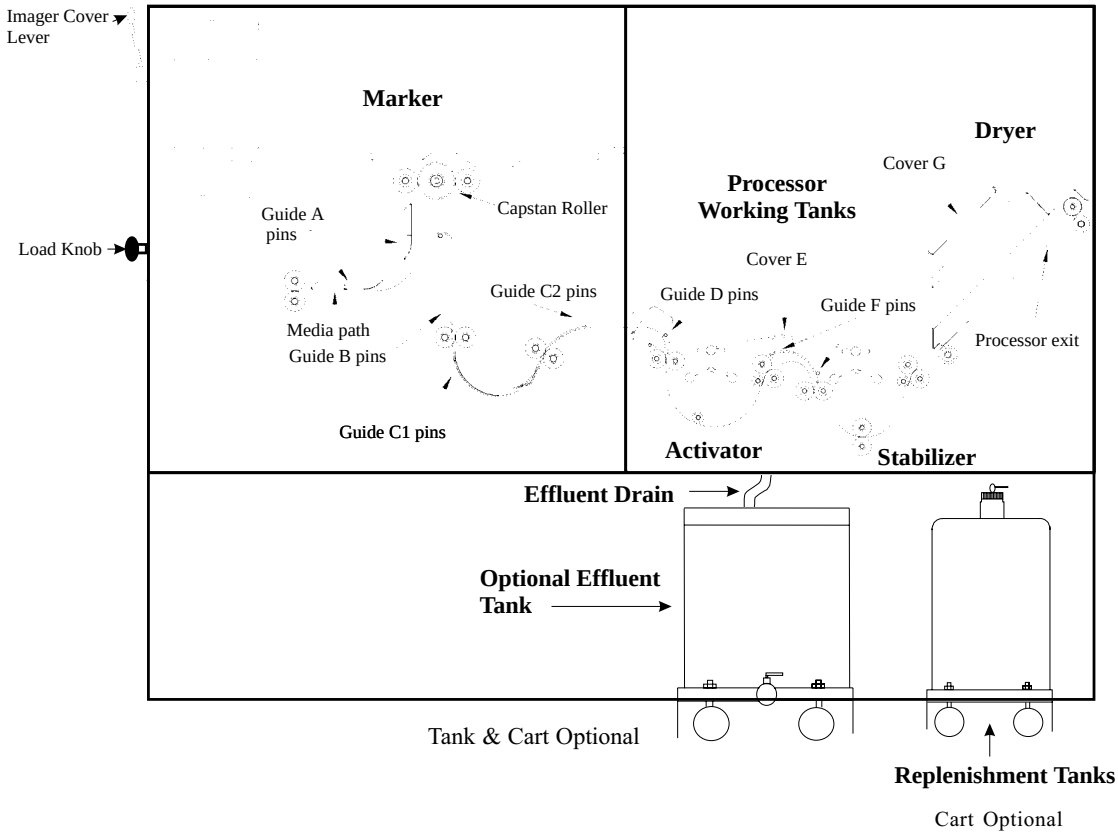


Figure 3-1 Side View of the PlateStream 46

Note: If the processor has not been in use for several days, the racks can freeze up due to evaporation causing rollers to stick together. The racks should be removed and rinsed with water and rotate the gears to free them up. Failure to do so can result in gear breakage.

Loading Plate Material

1. Open the platesetter top cover. Raise the marker by pulling the marker lever towards the front of the platesetter until the lever stops. Lift up the marker gently.

2. Pull out the load knob on the left side of the platesetter. From inside of the platesetter, adjust the two rear edge guides by pulling the edge guide knobs up and sliding to the position closest to the plate media width.

3. Adjust the two front edge guides by loosening the screw and moving all the way to the front.

4. Open the feed cassette by lifting the back of the lid and sliding forward at the same time. Remove the spool assembly. Adjust the left hub to match the edge guide position by squeezeing the clip and sliding on the shaft. Remove the right hub from the shaft by lifting the clip and sliding it off the shaft. Slide the media onto the shaft. Slide the right hub onto the shaft by lifting the clip and pushing down on the spool until the spool is tight against the media (see Figure 3-2). Insert the loaded spool assembly back into the feed cassette with 12" of media remaining outside the cassette.

5. Place the cassette onto the platesetter cassette mounting brackets.

6. Feed media through the 1st set of rollers and 2 edge guides.

7. Rotate the cassette up and lock into place on the platesetter. Be sure the media is not pinched between the cassette and the platesetter.

8. From inside the platesetter push the media up through the next edge guides and into the nip of the pinch roller.

9. Set the front edge guides up against the media and tighten the screw.

10.Gently lower the marker and lock down by pushing the marker lever towards the rear of the platesetter until the lever is horizontal. Close the top cover.

11. Set the plate width from the control panel setup menu. (Optional: Adjust the “feet remaining” feature on the control panel input spool manager menu.)

12. Push the load knob in. This will automatically load the plate material. (The control panel must be in the main menu or the test plate menu for this automatic feature to work). NOTE: Pressing the load key '5' on the control panel main menu will also start the load media process.

13. Image one test plate from the control panel Test Plate menu.

NOTES:
• **'**Destination' must be set to "Processor" (see the **PlateStream 46 Platesetter Operator Manual** for control panel procedures).

• Cut off any punched area of plate before reloading to ensure a reliable load.

• Remove leader from daylight load media before loading media.

• Media must be loaded with no tears or wrinkles.

• Media must be reloaded after jams or other fault conditions. In this case, a message will appear on the operator panel to "Reload Media" or "Manually Reload Media."

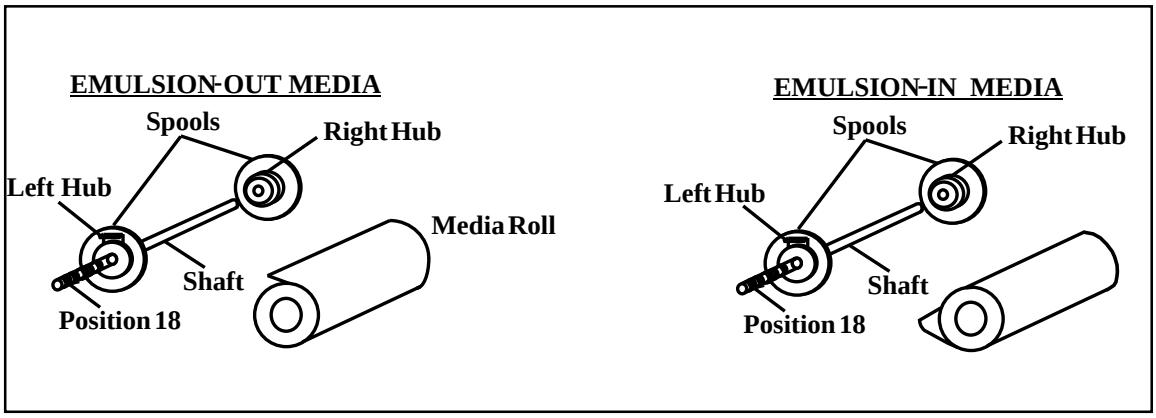


Figure 3-2. Loading Plate Media on Spool

Imaging Plates

1. **Configure RIP; Connect to the Network**

ZAPrip 200 (Level 1 ZAPrip)

a. Exit RIP and watch for the reboot warning "The RIP will reboot in 15 seconds."
b. Hit **ctrl-c** when you see the message.
c. Answer **Y** to "Terminate batch job?"
d. Set up network connection

For AppleShare networks:

At the DOS prompt, enter **CD \PHONENET**
Enter **DA** to start Phonenet desk accessory
Use DA to log on to your AppleShare file server and mount a folder (directory) The directory will be mounted on the RIP as the **I:** drive.
Exit **DA**

For Novell networks:

At the **DOS** prompt, enter **CD \NWCLIENT**
Enter **NET** to start Novell network utility
Log on to your Novell file server an mount a volume (directory). The directory will be mounted on the RIP as the **I:** drive.
Exit **NET**

e. Change directory to **I:** and enter **MD \RIP** to create the "hot folder." This is the folder the RIP will monitor for incoming PostScript jobs. Postscript files placed here will be processed automatically when the RIP is running. (The spool directory is set in the RIP setup under the Configure/Edit Setups/Spooling menu item).

f. Reboot the RIP

Adobe PostScript ZAPrip

a. Log in as **Administrator** with password: **printware**
b. Double-click on the "ZAPrip" icon to launch the RIP.
c. Hit **F6** to start the RIP output queue.

ZAPripHQ (Harlequin/Xitron) RIP

a. Press ctrl-alt-del to log on.
b. Log in as **Administrator** with password: **printware**.
c. Double-click on the ZAPrip icon to start the RIP.
d. Choose **Start Inputs** from the **Xitron RIP** menu to start the RIP.

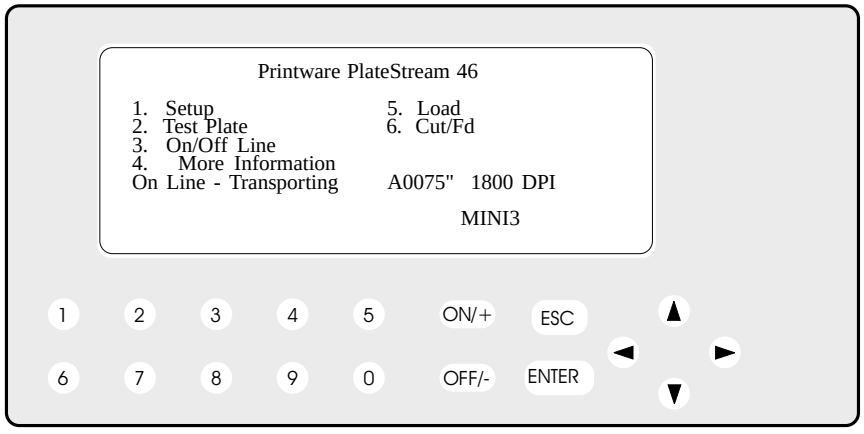
2. Print a Job

a. Be sure your front-end computer can see the network hot folder.
b. The Adobe and ZAPrip HQ (Harlequin) RIPs can use the Mac chooser as well as a hot folder. To set this up, use the chooser to select the desired PlateStream output device and resolution.
c. If a print driver is required, use Adobe 4.2 for WIN95, Adobe 5 for NT.
d. Create a test job whose document size is equal to the desired plate size.
e. Print the job, saving it as a PostScript file in the spool (“hot”) folder (or using the print command if using set up with Mac chooser).

Miniplate™ Option

With the Miniplate option, the Platesetter accommodates jobs shorter than the 12" minimum plate length by imposing several small jobs down the length of a plate. To turn Miniplate on, change the destination to Processor Miniplate in the Setup Menu (see chapter 2 in the section **Setup Menu**). The minimum job length is 1". Miniplate accumulates shorter jobs until the combined length of the jobs exceeds an operator-selected cut length (*e.g.*, 12"). The plate material is then cut and run through the processor. Miniplate cut length can be set from 12" to 18" in the More Information Menu (see chapter 2). The gap between jobs in Miniplate Mode can be eliminated or set to a desired amount in the Calibrate Menu (see the **Physical Calibration** section of the INSTALLATION GUIDE). This calibration is enabled in the More Information Menu. Miniplate mode can also be used in cassette mode to eliminate the gap between jobs.

The **CUT/Fd** key '**6**' operation will cut and feed into the processor any miniplates remaining in the Platesetter. The extra material fed to bring the length up to the selected minimum length will be imaged black so as not to pick up ink on the press. The word '**MINI**' in the lower right corner of the main menu indicates that the Platesetter contains miniplates that have not been cut or processed. The following digit indicates the number of miniplates in the Platesetter, and if more than 9 miniplates are present the digit will be replaced by a **'+'.**



Film Option

With this option the Platesetter will image film any width from 9" to 18.1" (22.9 cm to 46 cm). To turn the film option on change the destination to cassette in the Setup Menu (see chapter 2 in the section **Setup Menu**). This option is supplied with light tight feed and take-up cassettes. The film is fed from the feed cassette, imaged, and then fed into the take-up cassette. The take-up cassette is easily removed and taken to another area for processing.

The feed cassette will hold up to 280' of film. The take-up cassette will hold up to 25' of film. The cut/Fd (Key '6' on the control panel Main Menu) will cut and feed any print jobs remaining in the Platesetter (plus a leader) into the take-up cassette.

Loading Optional Film Media

1. Open the imager top cover. Raise the marker by pulling the marker lever towards the front of the platesetter until the lever stops. Lift up the marker gently. (See figure 3-4).

2. Pull out the load knob on the left side of the platesetter. From inside of the platesetter, adjust the two rear edge guides by pulling the edge guide knobs up and sliding to the position closest to the film width.

3. Adjust the two front edge guides by loosening the screws and moving the guides all the way to the front.

4. Open the feed cassette by lifting the back of the lid and sliding forward at the same time. Remove the spool assembly. Adjust the left hub to match the edge guide position by squeezeing the clip and sliding on the shaft. Remove the right hub from the shaft by lifting the clip and sliding it off the shaft. Slide the film onto the shaft. Slide the right hub onto the shaft by lifting the clip and pushing down on the spool until the spool is tight against the film (see Figure 3-3). Insert the loaded spool assembly back into the feed cassette with 12" of film remaining outside the cassette.

5. Place the feed cassette onto the platesetter cassette mounting brackets (see Figure 3-4).

6. Feed media through the 1st set of rollers and 2 edge guides.

7. Rotate the feed cassette up and lock into place on the platesetter. Be sure the film is not pinched between the cassette and the platesetter.

8. From inside the platesetter push the film up through the next edge guides and into the nip of the pinch roller.

9. Set the front edge guides up against the film and tighten the screws.

10. Open the processor cover and remove guide D by pressing the guide towards the front of the platesetter. Life the guide from the back of the platesetter and remove.

11. Place the slot on the take-up cassette over the imager exit guide. Place the top two metal pins attached to the take-up cassette in the slot in the two black take-up receptacles and push down.

12. Gently lower the marker and lock down by pushing the marker lever towards the rear of the platesetter until the lever is horizontal. Close the top covers.

13. Set destination in set-up menu to cassette mode. Set the plate width from the control panel setup menu. (Optional: Adjust the “feet remaining” feature on the control panel input spool manager menu.)

14. Push the load knob in. This will automatically load the film material. (The control panel must be in the main menu or the test plate menu for this automatic feature to work). NOTE: Pressing the load key ‘5’ on the control panel Main menu will also start the load film process. Image one test plate from the control panel Test Plate menu. The platesetter is now ready to image.

15. To remove imaged film for processing, press the Cut/Fd ‘6’ on the control panel Main Menu. Open the processor top cover and remove the take-up cassette by lifting the cassette off the two black take-up receptacles.

16. To remove film from the feed cassette, open the load door and pull on the load knob. Remove the feed cassette by lifting the cassette off the four black receptacles. Open the feed cassette by lifting the back of the lid and sliding forward at the same time. Remove the spool assembly from the cassette. Remove the right hub from the shaft by lifting the clip and sliding it off of the shaft. Slide media off of the shaft. To load another roll of film media follow steps 1 through 14 outlined above.

Note: The take-up cassette will hold up to 25' of printed jobs, however the cassette will hold only one piece of media at a time.

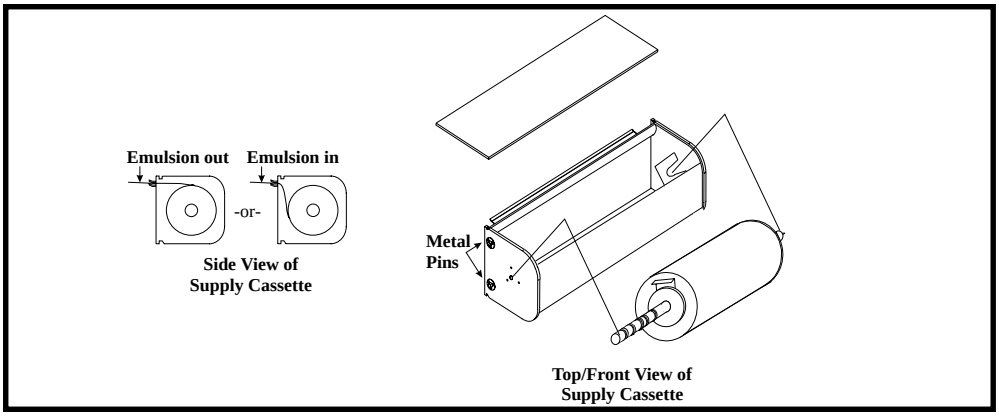


Figure 3-3 Loading Film Media on Spool

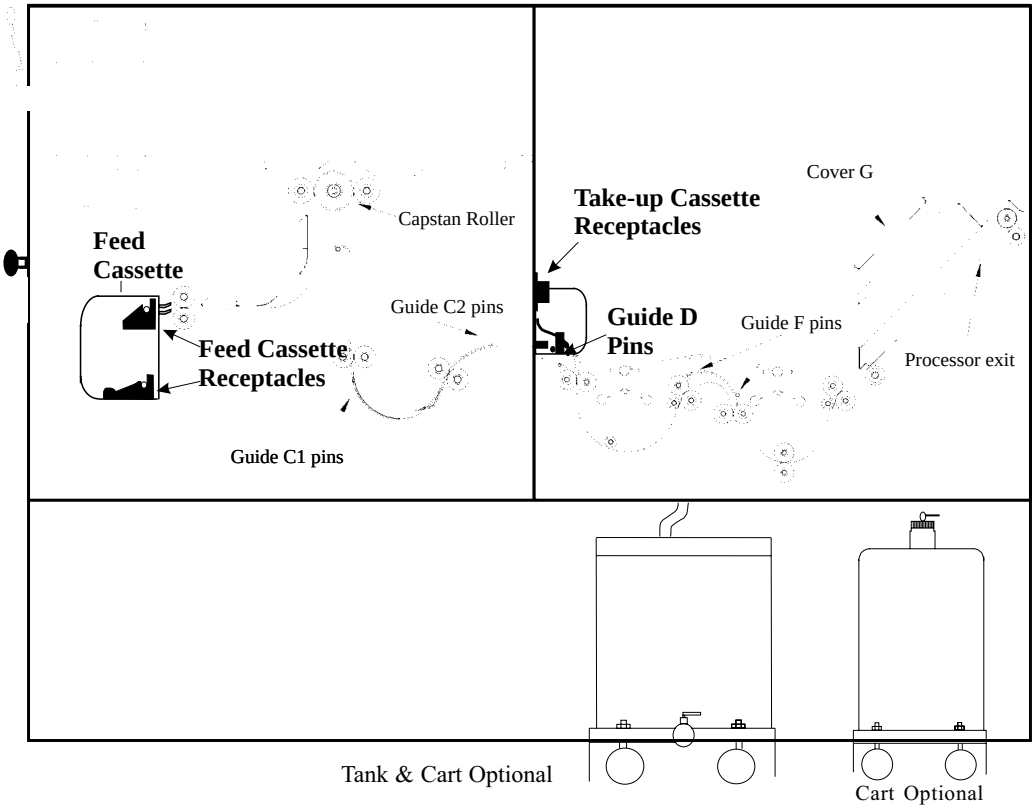


Figure 3-4 Location of Optional Feed and Take-up Film Cassettes

CHAPTER 4

OPERATING THE PLATESETTER

Making a Plate

Controlling Image Quality

To maintain optimum print quality, use only recommended media and processing chemistry, and store all supplies properly. Also, perform the preventive maintenance procedures detailed in Chapter 6 to keep the Platesetter clean and in proper operating condition. Be sure all Platesetter covers are completely closed when making plates.

Once per week (or more often if conditions require) print a test plate and inspect the print quality. If image quality problems are noticed, perform the following adjustments. Image quality problems may include slight changes in character stroke width, image density, or background density.

Refer to your RIP reference guide for instructions on printing a test plate. Inspect the plate. If image quality problems are found, adjust the exposure as described in the next section.

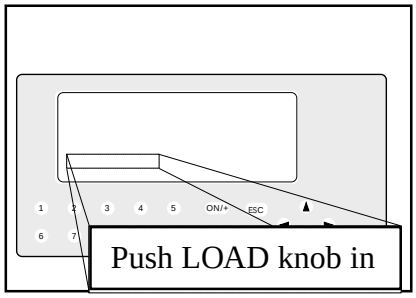
Adjusting Exposure (Laser Intensity)

See CALIBRATION in Appendix B

Responding to Control Panel Error Messages

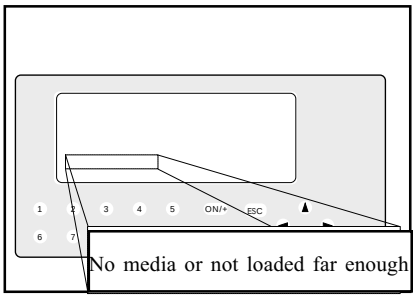
This section shows the different error messages which may be displayed on the Platesetter control panel. Next to each error message is the cause and the most probable solutions. When more than one solution is listed, try the first solution first; if it does not correct the problem, then try the next solution.

Once the problem is corrected, press the **ESC** key to clear the error message from the display. If the solution(s) listed does not correct the error, call your Printware-authorized technician to service your Platesetter.



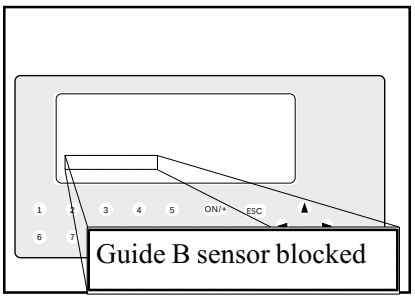
CAUSE: The load knob is not pushed in.

SOLUTION: Push knob in. See chapter 3 in the section **Loading Plate Media**.



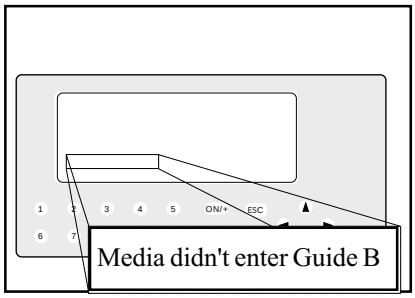
CAUSE: The Platesetter is out of media or the media not loaded properly.

SOLUTION: See chapter 3 in the section **Loading Plate Media.**



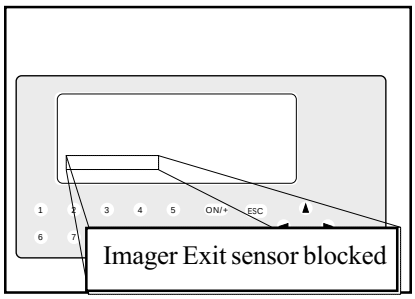
CAUSE: The Guide B sensor is blocked.

SOLUTION: Clear media path. See chapter 7 in the section **Clearing Media Path**.



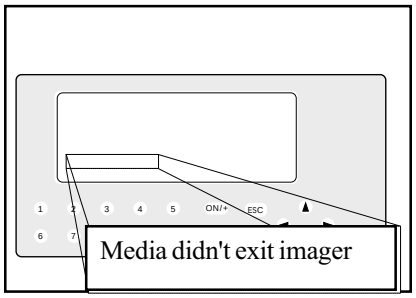
CAUSE: The leading edge of the media was not detected by the Guide B sensor within the expected amount of time.

SOLUTION: Clear media path. See chapter 7 in the section **Clearing Media Path**.



CAUSE: The Imager Exit sensor is blocked.

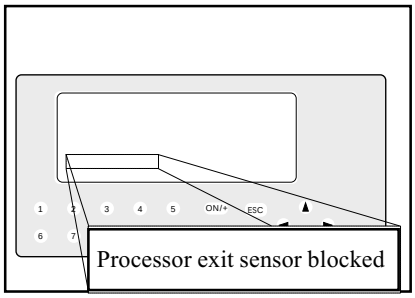
SOLUTION: Clear media path. See chapter 7 in the section **Clearing Media Path**.



CAUSE: The leading edge of the media was not detected by the Imager Exit sensor within the expected amount of time.

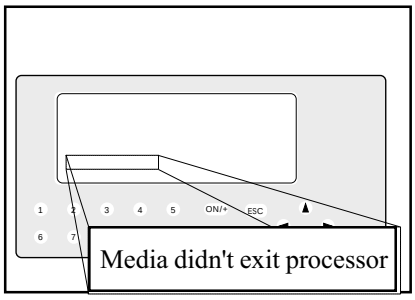
SOLUTION:
1. Clear media path. See chapter 7 in the section **Clearing Media Path**.

2. Calibrate the processor. See chapter 2 in the section **Calibrate Menu**.



CAUSE: The sensor under cover G is blocked.

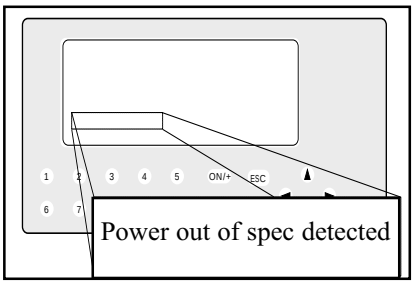
SOLUTION: Clear media path. See chapter 7 in section **Clearing Media Path**.



CAUSE: The leading edge of the media was not detected by the processor exit sensor within the expected amount of time.

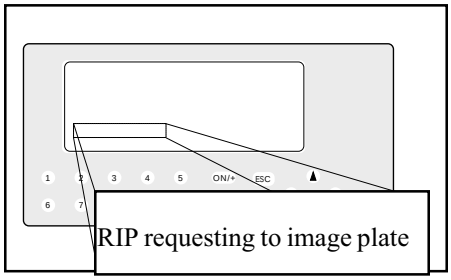
SOLUTION:
1. Clear media path. See chapter 7 in section **Clearing Media Path**.

2. Calibrate the processor. See chapter 2 in the section **Calibrate Menu**.



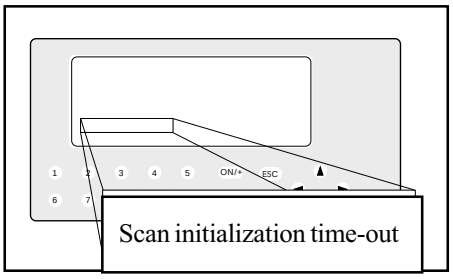
CAUSE: The Platesetter electronics have detected a problem with one of the power supply voltage levels.

SOLUTION: Turn off the Imager and call for service.



CAUSE: A print job was sent to the Platesetter while it was not in the On Line state.

SOLUTION: From the Main Menu on the control panel, press **3** to return the Platesetter to the On Line state.

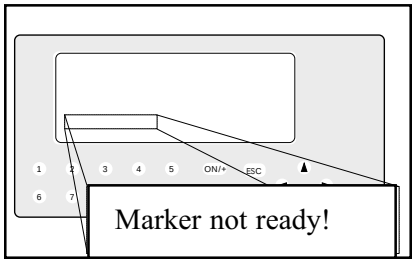


Cause: The marker unit did not power up correctly within the expected time.

SOLUTION:

1. Turn the Platesetter off, wait 30 seconds, turn the Platesetter back on and wait for the power up to be completed.

2. Call for service

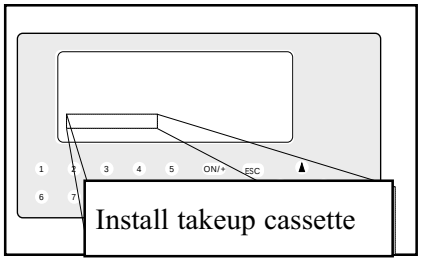


CAUSE: The marker is not ready to image.

SOLUTION:

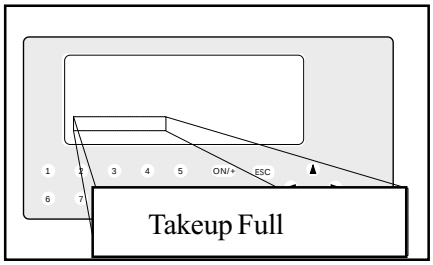
1. Turn the Platesetter off, wait 30 seconds, turn the Platesetter back on and wait for the power up to be completed.

2. Call for service.



CAUSE: The take-up cassette is not installed while the Platesetter is in the optional cassette mode.

SOLUTION: Install the take-up cassette. See chapter 3 in the section **Film Option**.



CAUSE: The take-up cassette for the film option is full.

SOLUTION: Empty take-up cassette. See chapter 3 in section **Film Option**.

CHAPTER 5

SUPPLIES

Introduction

Using recommended supplies assures high quality printing plates and printed output. The Platesetter is designed to image silver halide-coated plate material. The Image default for silver halide material is negative right reading. See chapter 2 in the section **Setup Menu**. Plate media may be either paper or polyester based. Roll width may be from 9" to 18.1" (22.9 cm to 46 cm). The maximum roll length is 280' (85 M).

SUPPLIES

PRINTWARE: SILVERSTREAM+

RED LIGHT PLATE MEDIA:

	Emulsion In	
5 mil polyester	808555-XXX	(280 FT ROLLS)
8 mil polyester	808666-XXX	(280 FT ROLLS)

CHEMISTRY:

ACTIVATOR: 808777-001
STABILIZER: 808777-002

AGFA: SETPRINT PLUS

RED LIGHT PLATE MEDIA:

	Emulsion In
5 mil polyester	SET-R 0.13
8 mil polyester	SET-R 0.20

CHEMISTRY:

ACTIVATOR: G5200
STABILIZER: G5400

MITSUBISHI: SILVER DIGIPLATE

	INFRA-RED PLATE MEDIA			RED LIGHT PLATE MEDIA		
		Emulsion In	Emulsion Out		Emulsion In	Emulsion Out
5 mil paper	SDP RD125	SPEC28	SPEC28R	SDP RR125	SPEC28	SPEC28R
7 mil paper	SDP RD175	SPEC 28	SPEC28R	SDP RR175	SPEC28	SPEC28R
4 mil polyester	SDP FD100	SPEC 820	SPEC820R	SDP FR100	SPEC820	SPEC820R
7 mil polyester	SDP FD175	SPEC 820	SPEC820R	SDP FR175	SPEC820	SPEC820R

CHEMISTRY:

ACTIVATOR: SLM-AC
STABILIZER: SLM-ST

Tips on Supplies

To get the best performance from your Platesetter, follow these guidelines for storing and handling supplies.

Plate Media

- Handle imaging media by the ends.
- Avoid excessive touching of the surface of the media.
- Store media rolls upright (on end), not on their sides.
- To prevent the crushing of media, avoid placing other objects on top of the media rolls.
- Store all media as recommended by the manufacturer.
- Plate material will absorb moisture in humid environments and lose moisture in dry environments, which will affect print quality. However, the plate material may not be permanently damaged. Improperly stored plate material will recover if stored for an extended period with the bag open in ideal humidity conditions.
- For optimum print quality, use only recommended media.
- Do not load media that is wrinkled or torn.

Processing Chemistry

- Use only recommended processing chemistry.
- Carefully follow all label instructions for mixing and use.
- After use, recap activator and stabilizer solution bottles tightly.
- Store all chemicals in a well-ventilated area. Follow the manufacturer's instructions regarding safety, storage, temperature, humidity, and other environmental factors.
- Rotate supplies to use the oldest items first.
- Disposal of all chemicals must meet local environmental codes.

CHAPTER 6

PREVENTIVE MAINTENANCE

Introduction

To avoid problems with the Platesetter, maintain high print quality, and to avoid unnecessary service calls follow the instructions in this chapter.

- Keep all equipment clean and well maintained.
- Perform regularly scheduled preventive maintenance.
- Carefully follow instructions for the mix and use of chemistry. Ink and press chemistry must be compatible.
- Keep all solutions filled to the proper levels.
- Handle plate media carefully.
- Mount plates on the press properly.

Operator Maintenance Schedule

(recommendations based on 8 hours per day use, 5 days a week)

1. Imager section maintenance
   - Roller cleaning (only when necessary, damp cloth, light D-ink, no alcohol or solvents)

2. Processor section maintenance
   a. Roller cleaning
   (weekly with warm water or mild soap; no-alcohol, film processor cleaner, or solvents)

   b. Guide cleaning (weekly with warm water)

3. Marker assembly mirrors
   - Inspect every 6 months; use canned air to remove dust particles only as needed

Maintenance Procedures

Cleaning the Imager Rollers

Clean all the Imager rollers when necessary to prevent plate slippage or plate skew. It's easiest to clean the rollers just after the spool has run out of media. To clean these rollers:

1. Open the imager top cover. Raise the marker by pulling marker lever towards the front of the Platesetter until lever stops. Lift up marker gently (see Figure 6-1).

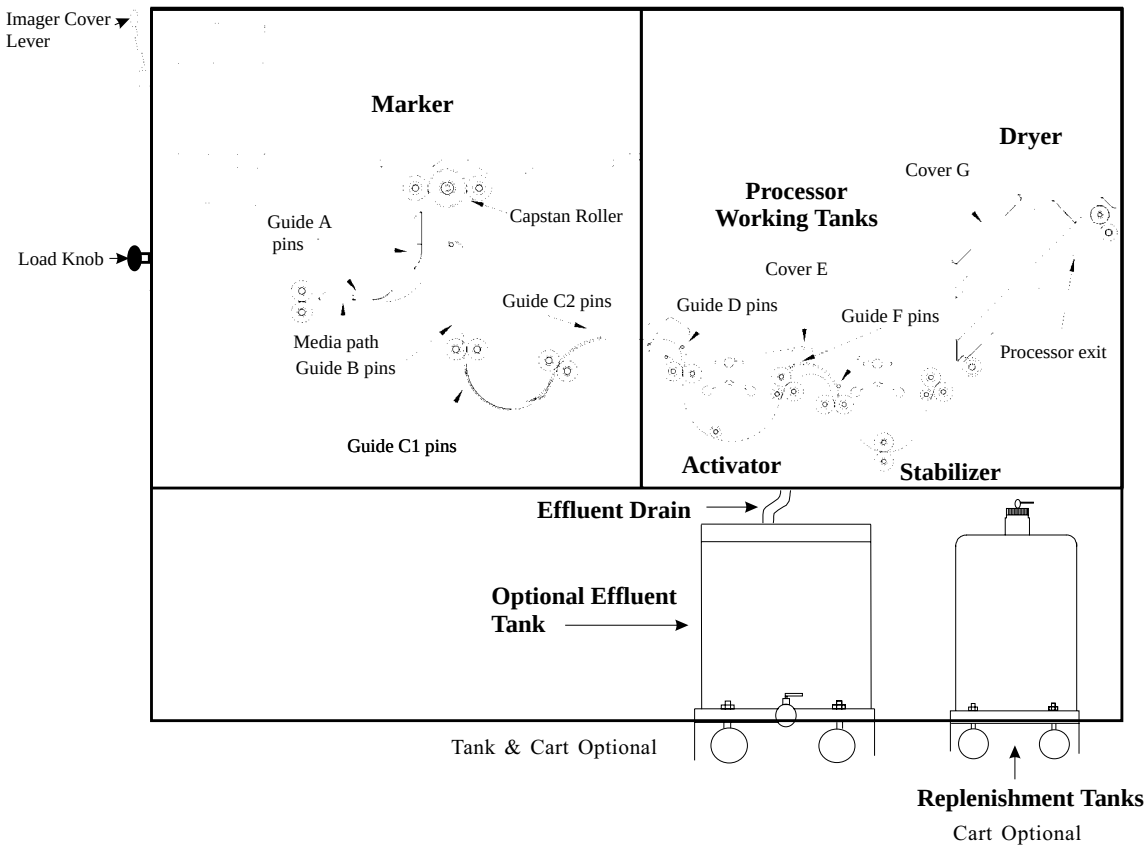


Figure 6-1 Side View of the PlateStream 46 Platesetter

→→→**********
CAUTION! Be very careful when working on or around the Imager rollers with the machine running, especially when wearing a tie or loose-fitting sleeves, to avoid getting anything caught between the rollers.
****

2 . From the Main Menu display on the control panel, press **'4'** and then **'1'** to access the Run Hardware Menu.

3. Turn on the feed motor by pressing the **'1'** key and then the **'ON/+'** key. Access the feed rollers from the top of the Platesetter. As the feed rollers are rotating, clean them using a soft cloth and D-Ink. See Figure 6-1. Press the **'OFF/-'** key to turn off the feed motor, then press **'ESC'**.

4. Turn on the capstan motor by pressing the **'2'** key and then the **'ON/+'** key. Access the rollers from the top of the Platesetter and open the shutter. As the pinch and capstan roller are rotating, clean them using a soft cloth and D-Ink. Press the **'OFF/-'** key to turn off the transport motor, then press **'ESC'**.

5. Turn on the imager exit motor by pressing the **'3'** key and then the **'ON/+'** key. Access the upper roller from top of the Platesetter. Remove the front panel to access lower roller from the side of the Platesetter. As the imager exit rollers are rotating clean them using a soft cloth and D-Ink. Press the **'OFF/-'** key to turn off the exit motor, then press the **'ESC'** key.

6. Press the **'ESC'** key again to return to the Main Menu, then press the **'3'** key to return the Platesetter to the on-line mode.

∞. Replace the front panel. Gently lower the marker and lock by pushing marker lever towards the rear of the Platesetter until lever is horizontal. Close the top cover.

Cleaning the Processor Module

For optimum performance of the processor module, it is important to keep all chemistry filled to the proper levels, and clean the machine weekly to prevent a buildup of chemistry on the rollers. The processor should be cleaned more frequently if needed to maintain plate quality. For Mitsubishi Silver Digiplate, the processor should be cleaned if the pH of the chemicals fall *outside* the recommended range:

Activator: pH > 12.8
Stabilizer: pH < 6.8

To clean the processor (see figure 6-1):

1. Open the processor top cover. Place 6' long, 1¼" diameter (182 cm by 3.2 cm) vinyl hose from underneath the processor in the optional effluent tank. Drain the processor working tanks by removing the overflow tubes located in the rear of the processor tanks inside the Platesetter.

2. Remove cover E. Remove guide F by pressing guide towards the back of the Platesetter, lift guide from the front of the Platesetter and remove. Remove guide D by pressing guide towards the front of the Platesetter, lift guide from the back of the Platesetter and remove. Wash cover E, guide F, and guide D in warm soapy water and dry using a soft cloth.

3. Remove Activator and Stabilizer racks. Clean the processor working tanks using warm soapy water, and dry with soft cloth. Clean Activator and Stabilizer racks using warm soapy water. Rotate the rollers and clean them using a soft cloth and warm soapy water. Replace the Activator and Stabilizer racks to original positions. Replace guides and cover to original position.

4. Remove cover G. Remove dryer rack by holding the metal edge in the center of the dryer rack, lift to clear the two bottom pins, and remove. Wash cover G and dryer rack in warm soapy water and dry using a soft cloth. Replace dryer rack and cover G to original position.

5. Close top cover.

CHAPTER 7

TROUBLESHOOTING

Print Quality Troubleshooting

PROBLEM	CAUSE	SOLUTION
'Scumming' (ghost images, smudges or blotches on prints due to poor plate surface)	1 The press ink/fountain balance is incorrect.	◡. Correct the balance.
	2. The press fountain mixture is incorrect or too weak.	2. Use the recommended fountain solution, properly mixed.
	3. The press ink is not compatible with the other chemicals.	3. Use the recommended ink.
	4. The press dampener form roll pressure is out of adjustment.	4. Adjust the pressure.
	5. The press Moleton cover or sleeve is contaminated.	5. Replace the cover or sleeve.
	6. The Platesetter Processor chemistry is depleted.	6. Replace Platesetter Processor chemistry.

PROBLEM	CAUSE	SOLUTION
Image Blinding (faint printing)	1. The press ink/fountain balance is incorrect.	1. Check the balance and correct if necessary.
	2. The press pressure is insufficient.	2. Check the pressure and correct if necessary.
	3 The press ink rollers are glazed.	3. Deglaze the rollers.
	4. The paper is clinging to the press blanket.	4. Check the paper supply and clean the blanket.
	5. The press fountain concentration is too strong.	5. Replace with correct concentration.
	6. The press blanket was not dry on roll-up.	6. Allow the blanket to dry before roll-up.
	7. The press blanket is glazed.	7. Deglaze the blanket.

PROBLEM	CAUSE	SOLUTION
Slow Roll-up or Poor Ink Transfer	1. The press fountain concentration or ink is incorrect.	1 Check and replace if necessary.
	2. The press ink/fountain balance is incorrect.	2 Check the balance and correct if necessary.
	3. The press rollers or blanket is glazed.	3. Deglaze the rollers or blanket.
	4. Press pressure is insufficient.	4. Check the pressure and adjust if necessary.
Weak or Uneven Image (lose fine lines, pinholes in solids)	1. Exposure (laser intensity) is set too high.	1. Adjust the exposure in the Platesetter Setup menu on the control panel per plate Media Manufacturer's instructions.
Fuzzy or Blurry Image	1. Platesetter processor chemistry is dirty.	1. Clean processor and replace processor chemistry.
	2. Laser is out of focus.	2. Call for service.
Marks on Plate or Scratched Plates	1. The Platesetter rollers are dirty.	1. Clean the Platesetter rollers.
	2. Bad plate material.	2. Replace the plate material.
	3. Platesetter processor chemistry is dirty.	3. Replace processor chemistry.

PROBLEM	CAUSE	SOLUTION
Plugged Images or Excessive Background	1. The exposure is set too high.	1. Adjust the exposure using the Platesetter Setup menu on the control panel.
	2. Bad plate material.	2. Replace plate material.
Wrinkled/Cracked Plates	1. The press plate clamp is improperly set.	1. Check handling techniques when mounting plates, and check the uniformity of the plate clamp.
Plates have Short Press Life	1. Press pressure is excessive.	1. Adjust the pressure.
	2. Press blanket surface is too harsh.	2. Change to a softer, smoother blanket.
	3. There are abrasive particles in the press ink.	3. Replace the ink.
	4. The press ink/fountain balance is incorrect.	4. Adjust the moisture control on the press to minimum.
	5. The press ink is too tacky.	5. Replace the ink or add reducer.
	6. Platesetter Processor chemistry is depleted.	6. Change Processor chemistry.
	7. Marker out of focus.	7. Call for service.

PROBLEM	CAUSE	SOLUTION
Toning/Specking (Background)	1. Plate media has abrasions.	1. Handle plate media more carefully.
	2. The press ink is emulsified.	2. Change the fountain solution and the ink.
	3. The press fountain solution is contaminated.	3. Change the fountain solution. Use only distilled water for preparing solution.
	4. The Platesetter rollers are dirty.	4. Clean the rollers.
	5. Platesetter Processor chemistry is weak.	5. Change processor chemistry.
Smeared Images, "Tails" on Characters	1. Plate media defective/incompatible.	1. Change plate media.
	2. Too much press ink.	2. Clean up press and reduce ink.
Weak Image on Press	1. The press fountain solution is contaminated.	1. Replace the fountain solution. Be sure to use distilled or deionized water for preparing the solution.
	2. The roller pressure on the press is incorrect.	2. Check the stripes (pressure between the press rollers).

General Troubleshooting

PROBLEM	SOLUTION
The Platesetter will not Turn ON (No Power)	1. Ensure that the Platesetter is plugged in. 2. Check the fuse or breaker for the outlet. Try unplugging the Platesetter and plugging another electrical item into the outlet to be sure that it has power.
Platesetter will not Start a Print Job	1. The Platesetter may not have completed its power-up sequence. When the Platesetter is ready, the Main Menu will be displayed on the control panel with On Line indicated and no error messages. 2. If an error is reported on the control panel, correct the problem following the procedure in Chapter 4, then press **'ESC'** and **'3'**. 3. Ensure that the interface cable between the RIP and the Platesetter is securely connected at both ends. 4. Cycle the Platesetter power. 5. Reboot the RIP.
"Reload Media" or "Manually Reload Media" message; Platesetter will not Start a Print Job	1. Media must be reloaded after jams or other fault conditions to prevent a reoccurrence of the jam. 2. "Reload Media" message should clear after reloading. 3. If message does not clear, check for defective sensor.

PROBLEM	SOLUTION
No Plate Exits from Platesetter	1. Ensure that the Platesetter is not out of plate media. 2. Ensure that the plate media is properly loaded and aligned. 3. Open the covers and check media path. See chapter 7 **Clearing Media Path.** 4. Inspect and clean the feed rollers.
Plates Jam	See chapter 7 **Clearing Media Path**.
Skewed, Wrinkled or Torn Plates	1. Ensure that plate media is properly loaded. 2. Clean the rollers (see Chapter 6). 3. Replace the plate material.

IN CASE OF TROUBLE

PROBLEM	SOLUTION
White, Black or Silver Streaks on the Plates	1. Clean processor and replace chemistry.
Brown Haze on Plates	1. Clean processor and replace chemistry. 2. Clean the processor rollers.
Wet Plates	1. Clean the dryer. 2. Clean the processor and replace the chemistry.

Clearing Media Path

1. Pull the load knob and gently lift up the top cover and MARKER (see Fig. 7-1).

2. Inspect the MEDIA PATH for jammed media in the areas described below. Access the MEDIA PATH through the top and front covers of the Platesetter.

GUIDE A	Press down on the four mounting pins and remove.
CAPSTAN	Inspect theCAPSTAN ROLLER for media wrapped around it.Open the shutter if necessary. The shutter is located on top of CAPSTAN roller.
GUIDE B	Remove the front cover of the Platesetter. Push the two mounting pins and swing the guide to the left.
GUIDE C1	Remove the front cover of the Platesetter. Push the two mounting pins and swing the guide to the right.
GUIDE C2	Press down on the two mounting pins.
GUIDE D	Slide the guide toward the front of the Platesetter. Lift the rear of the guide and remove.
GUIDE F	Remove COVER E. Slide GUIDE F toward the rear of the Platesetter. Lift the front end of the guide and remove.
COVER G	Use the handle to remove.

3. After locating the area of the media jam, cut the media from the operator panel (Run Hardware Menu -‘4’). Remove all loose media in the Platesetter.

4. If the media is wrapped around the CAPSTAN ROLLER, push the load knob in and back up the feed/transport rollers from the operator panel (More Information Menu - ‘4’). To stop the transport roller, press the ‘ESC’ or ‘OFF’ key.

5. Replace all guides in the original positions. Gently close the MARKER and lock it by pushing down the MARKER LEVER. Reload the plate material.

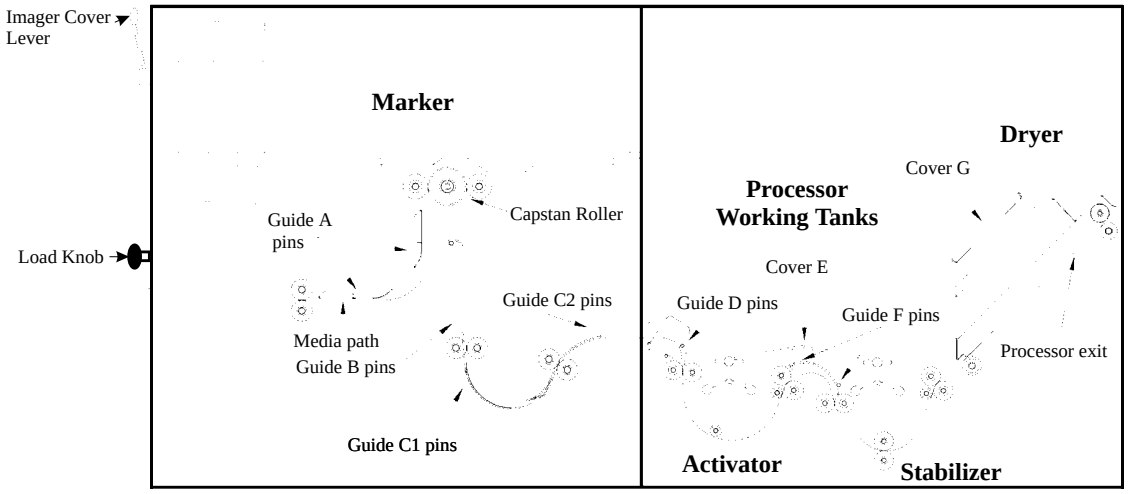


Figure 7-1 Clearing Media Path

Calling For Service

Overview

To avoid most problems, keep equipment clean and follow directions on all imaging and printing supplies.

Attempt to resolve the problem before calling for service. Use the procedures and troubleshooting guidelines outlined in this manual. If the problem still cannot be resolved, then follow the procedure outlined below.

Also call on an authorized service technician to perform preventive maintenance as required.

Steps for Calling for Service

1. Observe and write down the control panel error display (if applicable).
2. Turn off the Platesetter.
3. Write down the Platesetter model number and serial number (located on the rear cover).
4. Be prepared to provide the service technician with a complete description of the problem.
5. Only an authorized service technician should be allowed to service the Platesetter.

If you are unsure of whom to call to arrange for servicing, then call Printware's Customer Service Department at (800) 456-1400.

APPENDIX A

SPECIFICATIONS

General	
Resolution:	900, 1200, 1800 dpi (2400 dpi optional) Up to 175-line per inch (70-line per cm) screen rulings
Throughput:	36 in./min. (91 cm/min.) at 900 dpi 27 in./min. (69 cm/min.) at 1200 dpi 18 in./min. (46 cm/min.) at 1800 dpi 14 in./min. (34 cm/min.) at 2400 dpi
Image Width:	18.1" (46 cm; 108 picas)
Plate Size:	18.1" x 22" max.; 9" x 12" min. (46 x 56 cm max.; 22.9 x 30.5 cm min.)
Plate Cutter:	Automatically cuts to size
Waste Reduction Mode:	Reduces leader to 0.7" (1.8 cm)
Miniplate Option:	Special imposition software allows up to 5 separate images per plate
Exposure Laser:	650 nm red laser diode (780 nm infrared optional)
Spot Size:	25 micron nominal diameter
Repeatability:	±0.001" (25 microns) typical , 4 consecutive plates
Image-to-Edge Accuracy:	±0.003" (75 microns) typical

User Settings

Right/wrong reading and reverse
Laser intensity (0-100%)
Resolution (900, 1200, 1800, 2400 dpi)
Variable Image offsets

Recommended Media

Silver-halide polyester or paper plates, 0.004" to 0.008" thick
Imagesetting film (with film-handling option set)

Integrated Processor

2-bath design
Adjustable automatic replenishment
Adjustable developer bath temperature (75°F - 95°F; 24°C - 35°C)
Adjustable dryer temperature (75°F - 140°F; 24°C - 60°C)

PunchStream Integrated Punch Option

Integrated punch option for Heidelberg GTO, Ryobi 3300 series, Hamada H234, and similar landscape and portrait presses.
Punching repeatability: ±0.001" (25 microns)

Film-handling Options

Input cassette for daylight film loading
Processor bypass take-up cassette for up to 25' (8M)

ZAPrip® Raster Image Processor (Options)

Adobe® PostScript® ZAPrip
ZAPrip HQ (Harlequin interpreter)
ZAPrip 200 (HyWay interpreter)

RIP Network Protocol Options
Novell® NetWare®, Mac AppleShare™

Physical Dimensions

Dimensions:	47" h x 52" w x 35" d (119 cm x 132 cm x 89 cm)
Weight:	750 lbs. (340 kg)

Environment

Electrical Requirements:	220/240V, 50/60Hz 4400 VA
Temperature:	65°F - 80°F (18°C - 27°C) operating -40°F - 150°F (-40°C - 65°C) non-operating
Relative Humidity:	45% to 70% operating (non-condensing)

CALIBRATION

Introduction

This appendix provides tips for calibrating the PlateStream. Following these procedures will provide the best results, especially when printing screens. Calibration has two major steps:

I. Setting maximum density (D_{max}) in solid black areas by adjusting the laser power.
II. Linearization of the dot percentage transfer curve by calibrating the RIP.

PlateStream users doing critical screens have found it helpful to calibrate the platesetter weekly(or more often if required) and replace the processing chemistry every two weeks (or more often if required).

I. Setting Maximum Density

Before calibrating dot density, maximum density (D_{max}) is set by adjusting laser power from the PlateStream operator panel. There are several ways to do this:

A. Using an exposure file:

1. From the RIP, run file 805346-1.ps using the lowest resolution that your PlateStream is set up for (i.e. 900 or 1200 DPI). Use a page setup from the RIP that corresponds to this lowest resolution.
2. With the unaided eye, look at the 1x1, 2x2, 3x3, 4x4, and 8x8 checkerboard patterns.
3. If all 5 patterns look the same density – the same grey level – the image power is correct.
4. If the patterns get lighter grey going from 8x8 to 1x1 with 1x1 being the lightest, the image power is set too low. Increase the image power and run the file again. Again look at the patterns to determine if the grey level is acceptable. (This image power is made from the op panel main menu as follows: #1) Setup, enter. (Verify that the resolution shown after #2) is the same as you ran the file at). #3) Image Power (type in a higher (or lower) image power setting number), enter. Then re-run the file.

5. If the patterns get darker grey going from 8x8 to 1x1 with 1x1 being the darkest, the laser power is set too high. Decrease the laser power and run the file again and again look at the patterns to determine if the grey level is acceptable.
6. Repeat this procedure with the next highest resolution with the following exceptions:
   At 1800 DPI ignore the 1x1 pattern, as it will nearly always be too dark.
   At 2400 DPI ignore the 1x1 and 2x2 patterns, as they both will nearly always be too dark.

NOTE: When changing image power at low resolutions it may take several power level changes before a change in grey level on the printed patterns is visible. At higher resolution, often times a change of 1 power level will result in a visible change in grey level on the printed patterns.

B. Measuring Solid Black Areas:

a. Run a calibration target or a test plate and measure the density of a solid black areausing a reflective densitormeter (transmissive densitometer for film).

b. Set the D_{max} according to the media manufacturer's recommendations (refer to manufacturer's documentation or see the following table):

Media	**Optimal D_{max}**
Film	3.50 ± 0.20
SilverStream+ or AgfaSetPrint Plus	1.27 ± 0.02
Mitsubishi Silver DigiPlate	1.34 ± 0.02

c. The values in the table may be higher than the manufacturer's recommendations. Because of the quality of its laser spot, the PlateStream can be set higher to yield better solids without sacrificing fine-lines.

d. If the calibration of the densitometer is at all suspect, a rough procedure is to (i) fully fog a piece of plate material, and (ii) set laser to yield .06 below the fully fogged density reading.

e. If the density reading is *less* than optimal D_{max}, *increase* the laser power. If the reading is *greater* than optimal, *reduce* the laser power. (**Tip:** as a rough rule of thumb, change the laser power by 1% for each .01 density change needed). We've found that D_{max} at 900 dpi is best set approximately .04 higher than the "optimal."

f. Repeat procedure for each resolution and media type. You may prefer to calibrate only higher resolutions used for critical work.

II. Calibrating the ZAPrip HQ (Harlequin) RIP

The goal of calibrating the RIP is to linearize the transfer curve. Figure 1a shows a calibrated transfer curve, and Figure 1b shows a non-linear (uncalibrated) transfer curve.

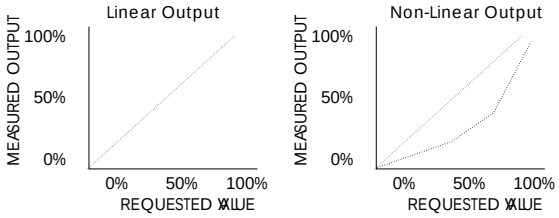


Figure 1a Figure 1b

The *ZAPrip HQ* (Harlequin) RIP **Print Calibration** menu allows you to print test strips (calibration targets). **Calibration Manager** allows you to create and edit calibration sets, and to enable or disable particular sets.

Calibration (Dot Gain) Manager displays calibration sets grouped by device. When you select from the **Device** drop-down list, all of the existing calibration sets for that device are displayed. The basic calibration steps are as follows (see the RIP manual for detailed procedures):

1. Select **Print Calibration** to print an uncalibrated target (see Figure 2).

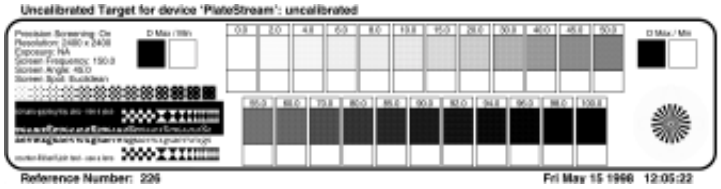


Figure 2: Calibration Target

2. Measure the density of each square of the target with the densitometer. Note that the densities marked on the target are reversed, e.g., the 10% square will be marked "90%." (**Tip:** Some densitometers require special procedures to measure densities of less than 10%; consult your densitometer manual).

3. Click **New** to create a new calibration set for the first time. The RIP manual describes how to use all the items in the Edit Calibration dialog box, but the essential items are as follows:

a. Set the PlateStream for "negative right-reading."
b. Set **Measurements as** "negative % dot."
c. Check **Negative media** for film (plate material is positive media)
d. Check **Force solid colors**, indicating that the PlateStream is a halftone device.
e. Enter the dot percentages from the densitometer readings.
f. In the **Warning criteria** panel, enter the settings used to create the target: resolution, dot shape, and the range of screen frequencies for which this calibration set can be used.

4. Save the set by clicking the **OK** button in the Calibration Manager dialog. If you click the **Cancel** button in the Calibration Manager dialog, you lose the changes.

5. Select a calibration set from the **Calibration** drop-down list in the Page Setup dialog box in order to associate it with a page set up.

6. Print a calibrated target to check calibration. A single-pass new calibration should be accurate to within about 2%. For greater accuracy, you can do a second calibration iteration by editing the values in the calibration set with the densitometer readings from the calibrated target (**Edit from calibrated target**).

7. Repeat this process for each resolution, screen, and media combination to be calibrated. You may need to calibrate only those combinations you use for critical work.

APPENDIX C

Halftoning

Printware RIPs provide a number of options to control halftone generation. Using them appropriately can improve the quality of your image. This section gives an overview of halftoning; see the RIP manual for more details.

Halftoning is the process of approximating gray levels or color shades with a pattern of dots. In many halftoning systems, the dots can have only one color value but can vary in size to alter the ratio of dot color to background color. The simplest use of this technique is approximating gray levels with a pattern of black dots against a white background, as illustrated in Figure ApB-1. Here, the size of the dots varies to represent different shades of gray. You see an area of small dots as a light gray, while an area of larger dots (each nearly filling its allowed space in the pattern of dots) is seen as dark gray. More strictly, it is not the size of the dots but the resultant ratio of black area to white area that represents the gray value.

Color shades are approximated with three patterns of dots, each in a primary color — cyan, magenta, and yellow — used with or without a fourth pattern of black dots. (This description of halftoning assumes three patterns—in fact, the fourth pattern of black dots is almost always used, for technical reasons that do not affect the principles of halftoning.) Within each color separation, the size of the dots (in relation to their background) is proportional to the amount of the primary color in the composite shade. When the separations are combined, typically by overprinting in registration, they create the illusion of shades of color. The cyan, magenta, and yellow dots cannot be distinguished when viewed from a distance—instead, the pattern of color dots appears to be an area of a shade of color.

Halftoning can be specified in the front-end application, or can be overridden and specified in the RIP. The three halftone parameters to be specified are:

1. The shape of the dots created.
2. The frequency and angle of the dot pattern.
3. The screening algorithm, i.e., conventional AM or enhanced (“supercell”) screening.

Dots, Halftone Cells, and Screens

Dots are the visible part of halftoning and most halftoning can be described in terms of patterns of these dots. The industry-standard terms used to describe the organization of these dots into manageable structures are halftone cells and screens. Each dot is considered to occupy a halftone cell. (Figure ApB-1 shows two groups of four halftone cells.) Every halftone cell is used to represent a gray level or color intensity. A dot can have any area in the range 0% of the area of the halftone cell (a completely white cell) through 100% of the area of the halftone cell (a completely black cell). Dots of intermediate areas create the illusion of gray levels. The number of pixels in the halftone cell defines how many intermediate areas of dot are possible and, in most systems, this defines the number of reproducible grays.

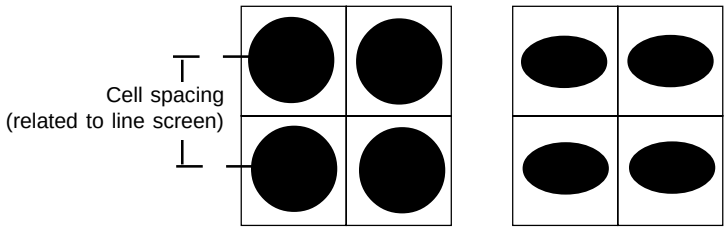


Figure ApB-1. Halftone cells, Screen Frequency, and Dot Shapes

A screen is an invisible grid that is superimposed on the image — each square in the grid is a halftone cell. For a particular dot shape, the important characteristics of a screen are its spatial resolution, referred to as screen frequency, and the screen angle (as shown in Figure ApB-2).

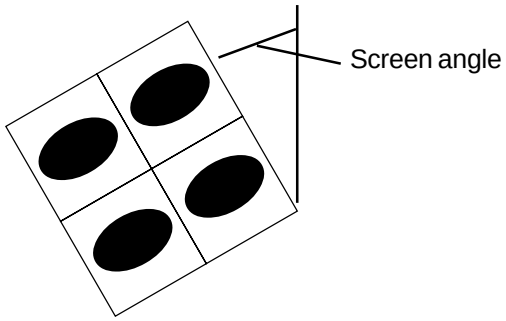


Figure ApB-2. Screen Angle

Recommended Settings

The best halftone strategy depends on the type of work, media, resolution, and press characteristics, but Printware makes the following recommendations for PlateStream computer-to-plate systems as a starting point:

- **Euclidian dots**—Figure ApB-2 shows circular and elliptical dots, but dots can have other shapes. These are described in detail in the RIP manual. Euclidian dot shapes vary with the screen to minimize perimeter to area ratio, which make them a good general purpose dot for black & white or color printing.

- **133 to 150-line Screens; Default Angles**—Silver-halide plate materials support a maximum of 175-line screens, but accuracy and calibration become more critical the higher the screen.

- **Enhanced AM screens** (also called "supercell" screens). These screening algorithms allow more precise screen frequencies and angles (e.g., if the application calls for a 150 line, 45° screen, the separation will be reproduced more exactly with supercell screening. Without supercell screening selected, the separation screens might be approximated with a variety of different screens and angles, causing moiré). Supercell screening also reduces moiré and smooths transitions in gray levels. Enhanced AM screens are called "Spectracell Screens" on the ZAPrip 200 (Level 1) RIP, Accurate Screens on the Adobe PostScript ZAPrip, and Harlequin Precision Screens (HPS) on the ZAPrip HQ (Harlequin/Xitron) RIP.

PlateStream 46

Platesetter

Service Manual

Printware
LEADERS IN COMPUTER TO PLATE

700581 Rev. E

CONTENTS

Chapter 1: General Information

Introduction.....2
Construction of the Platesetter.....4

Chapter 2: Maintenance

Approved Lubricants..... 6
Cleaning Supplies.....6
Platesetter Maintenance Schedule.....7
Procedures to Raise and
Lower the Marker.....8
Inspecting and Cleaning
Marker Assembly Unit Mirrors.....9
Marker Focus Adjustment Procedure.....12
Processor Section.....14

Chapter 3: Component Repair and Replacement

Replacing Rollers, Belts, Motors, and Cutter..... 20
Replacing Marker Unit.....27

Chapter 4: Replacing Electronic Components

Introduction.....28
Controller PCA.....29
Interface PCA.....32
Engine Stepper PCA.....34

Power Supply Assembly.....37
Sensors.....38

Chapter 5: Troubleshooting

Introduction.....42
Exposure Problems.....43
Image Quality Problems/Artifacts..... 45
Registration and Skewing..... 47

Operator Panel Problems.....49
Marker/Galvanometer Problems.....50
General Imager Problems.....52
Media Jams (Imager Module).....57
Imager Module Sensor Problems.....58
Cutter Problems..... 59
Punch Problems.....60
Processor Jams.....62
Processing Quality Problems/Artifacts.....64
Processor Mechanical Problems.....66
Processor Sensor Problems..... 67
Processor Electrical Problems..... 68
Media Problems..... 71
Press-Related Problems.....72
Wiring Diagram..... 73

CHAPTER 1

GENERAL INFORMATION

This Platesetter has been certified as a Class 1 laser product under the U. S. Department of Health and Human Services (DHHS) Radiation Performance Standard. This standard is in accordance with the Radiation Control for Health and Safety Act of 1968. A Class 1 certification means the Imager does not produce hazardous laser radiation.

Observe proper Electro-Static Discharge (ESD) procedures at all times during maintenance of this equipment, especially when servicing the RIP. ESD can damage sensitive micro electronic circuitry, leading to immediate failure or gradual degradation of performance over time. Observing the following precautions will help to prevent ESD damage to components:

Always keep PCAs in anti static bags during transport or at any time when removed from the machine. Never lay them down unprotected unless working at a static-protected workstation.

- Wear a ground strap attached to your wrist and to the frame of the machine.
- Always keep ESD in mind when working on electronic equipment.
- Use grounded or nonmetallic tools whenever possible.
- Do not attempt to open the inner covers, other than described in this manual.

Be especially careful when working on or around the following areas of the Platesetter:

- Marker
- Power Supply Assembly
- Processor

The Platesetter is controlled by a Raster Image Processor (RIP); several different RIP options are available, depending on the most common type of work to be done. The system is driven by the host computer on which the operator composes the text and graphics to be imaged. Once the print job has been composed on the host computer, it is sent to the RIP, where it is prepared for imaging. The rasterized file is then sent to the Platesetter where the file is imaged onto a plate. Figure S1-1 illustrates the basic system setup. Figure S1-2 illustrates the dimensions and external features of the Platesetter.

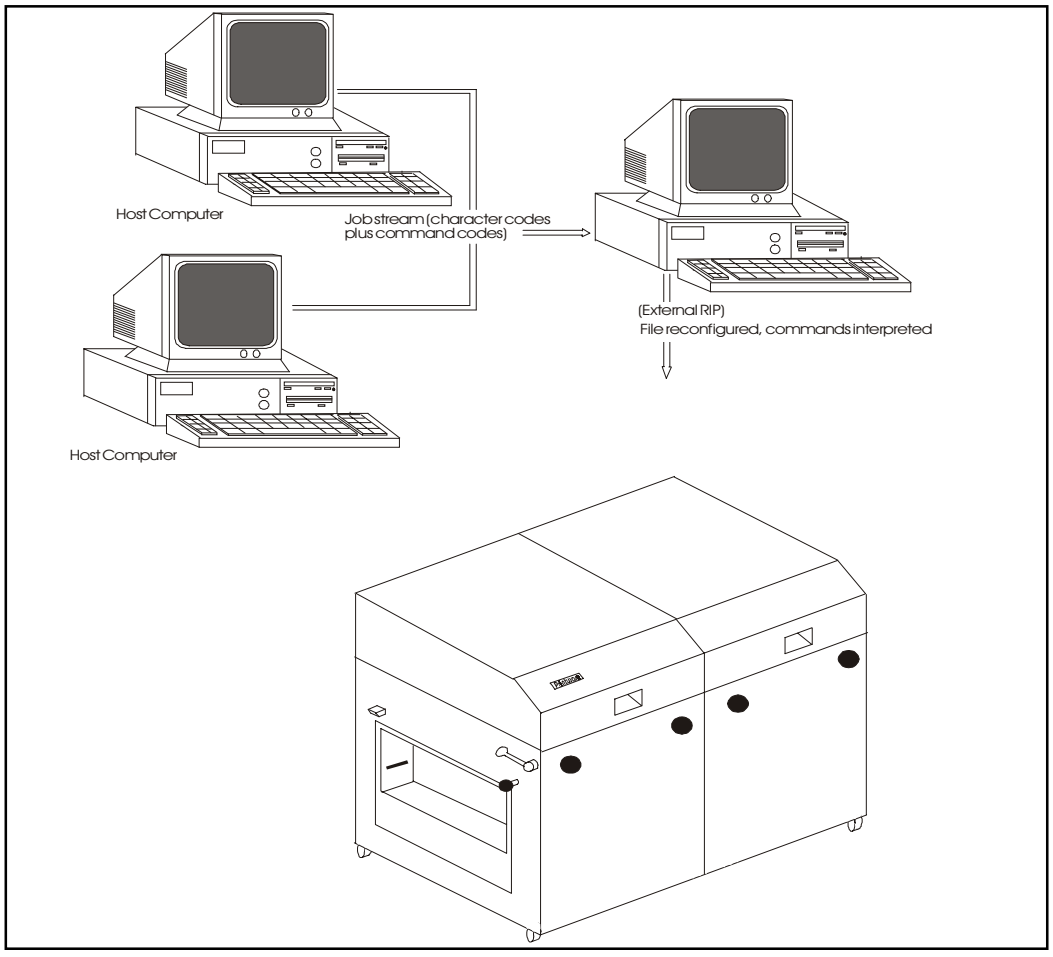


Figure S1-1. Interface Between the Host Computer, RIP and PlateStream 46

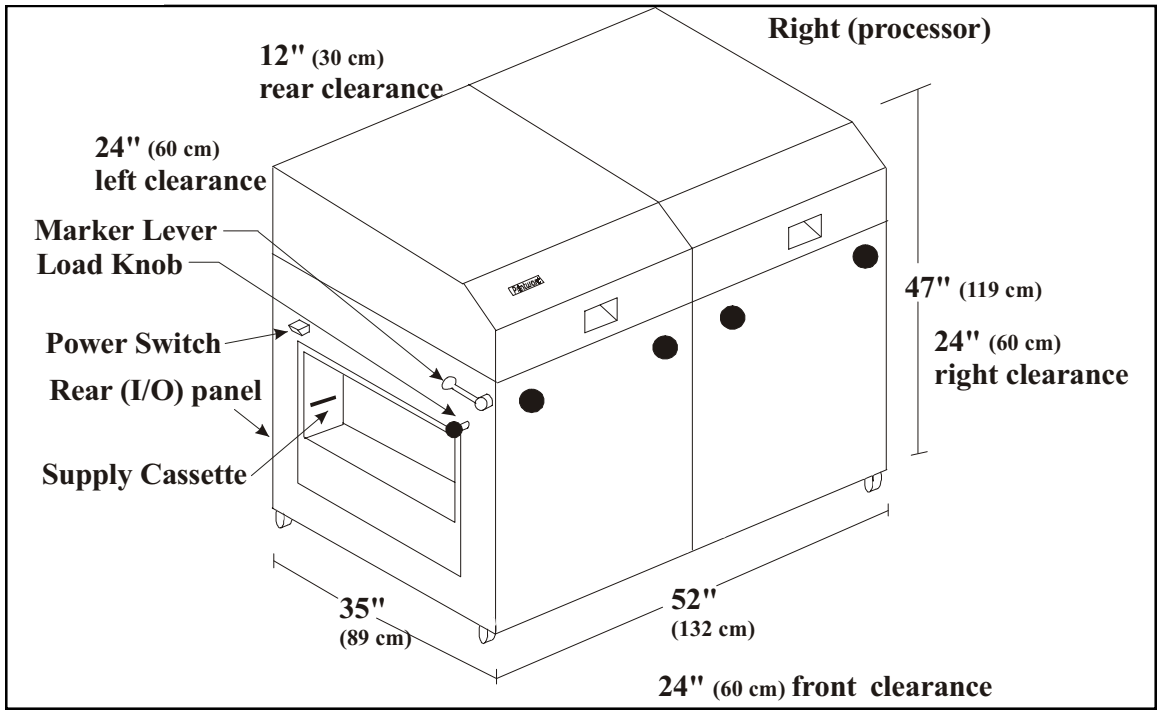


Figure S1-2 External Features of the PlateStream 46 Platesetter

Construction of the Platesetter

The five major component areas of the Platesetter are:

- •Imager Assembly
- •The Marker
- •The Power Supply Assembly
- •Cables and Electronics
- •Processor

Imager Assembly

The Imager Assembly consists of the following:

- •Spool Assembly
- •Feed Rollers and Stepper Motor/Drive System
- •Capstan Roller
- •Left and Right Pinch Rollers
- •Capstan/Pinch Roller Stepper Motor/Drive System
- •Cutter
- •Upper and Lower Imager Exit Rollers and Stepper Motor/Drive System

Marker

This section consists of the following:

•Marker Assembly; Includes Laser Diode, Laser Lens Assembly, Galvanometer, Mirrors, SOS and SOT Sensors.

Power Supply Assembly

The power supply assembly consists of the following:

•Power On/Off Switch
•20 Amp Circuit Breaker
•Electromagnetic Interference (EMI) Filter
•Power Distribution PCA
•Cooling Fan
•Multi-output Power Supply
•External Connectors J1-J5

Cables and Electronics

This group of components consist of the following:

•Controller PCA
•Interface PCA
•Control Panel PCA
•Processor PCA
•Stepper Motor PCA

Processor

This group of components consist of the following:

•Activator Tanks and Rack With Rollers
•Stabilizer Tanks and Rack With Rollers
•Dryer
•Drive System

CHAPTER 2

MAINTENANCE

For physical calibration procedures see the PlateStream 46 Platesetter Installation Guide.

This chapter identifies which subassemblies within the Platesetter require lubrication, details the procedures for lubricating the assemblies, and shows the recommended frequency for performing each procedure. This chapter also includes information on other preventive maintenance procedures.
Performance of lubrication and preventive maintenance procedures is essential to keep the Platesetter in proper operating condition and to maintain optimal image quality. Keeping the Platesetter and its surrounding area clean is also important. Wipe excess oil from all parts after performing lubrication procedures.
Perform these procedures at the time intervals shown in the **Platesetter Maintenance Schedule** section to keep the Platesetter operating properly and avoid unnecessary repairs.
For detailed drawings and Printware replacement part numbers see the PlateStream 46 Platesetter Parts Manual.

Approved Lubricants

The following lubricants are the only ones approved for use on the PlateStream.
•Mobilith SHC 460
•Silicone Stick Lubricant

Cleaning Supplies

Marker Mirrors:
•Compressed air; recommend type in Ultrajet E-Series Precision Dust Remover
•Acetone
•100% pure cotton, non-woven, lintless, non-scratching fabric such as Webril Wipes

Imager rollers:
- •Non-linting soft cotton cloth
- •Cleaning/refreshing chemical: Recommended type is D-Ink

Processor Rollers:
- •Non-linting soft cotton cloth
- •Warm soapy water

Printware Recommended Periodic Maintenance Schedule

(Recommendations based on 8 hours per day use, 5 days a week)

1. Imager section maintenance (Weekly)

    ❑ - Roller cleaning (damp cloth, light D-ink, no alcohol or solvents)

    ❑ - Clean or replace fan filter.

    ❑ - General cleaning of dust/dirt from imager area.

    ❑ - Clean out any punch chips from punch area or machine

    ❑ - Check oil level in punch compressor.

2. Processor section maintenance (Weekly)

    ❑ - Remove Activator and Stabilizer racks. Clean racks, and guides with warm, soapy water. Do not use alcohol or solvents. Clean any splashed chemistry from processor and dryer area. Inspect racks for worn or damaged components (gears) and replace as necessary.

    ❑ - At 4,000 plates or 4 weeks, whichever comes first, completely drain Activator and Stabilizer tanks and clean tanks and racks. Refill with fresh chemistry.

    Note: Replenishment rates are to be set to Printware recommendations. See "Setting Replenishment Rates" in the Installation Guide.

    ❑ - Check the temperature of the Activator bath (86^{o} F $\pm$ 2)

3. Semi-annual Preventive Maintenance

    ❑ - Performed by Printware authorized service technician.
    Includes check and adjustment/replacement as necessary of sensors and belts, all bearings, gears, rollers and clutches, pumps, blowers, motors, O-rings, heater temperatures, marker focus, calibration, etc.

Procedures to Raise and Lower the Marker

Open the top cover and raise the marker by pulling marker lever towards the front of the Platesetter until lever stops. Lift up marker gently. Lower marker by gently lowering the marker and lock by pushing marker lever towards the rear of the Platesetter until lever is horizontal. (See Figure S2-1)

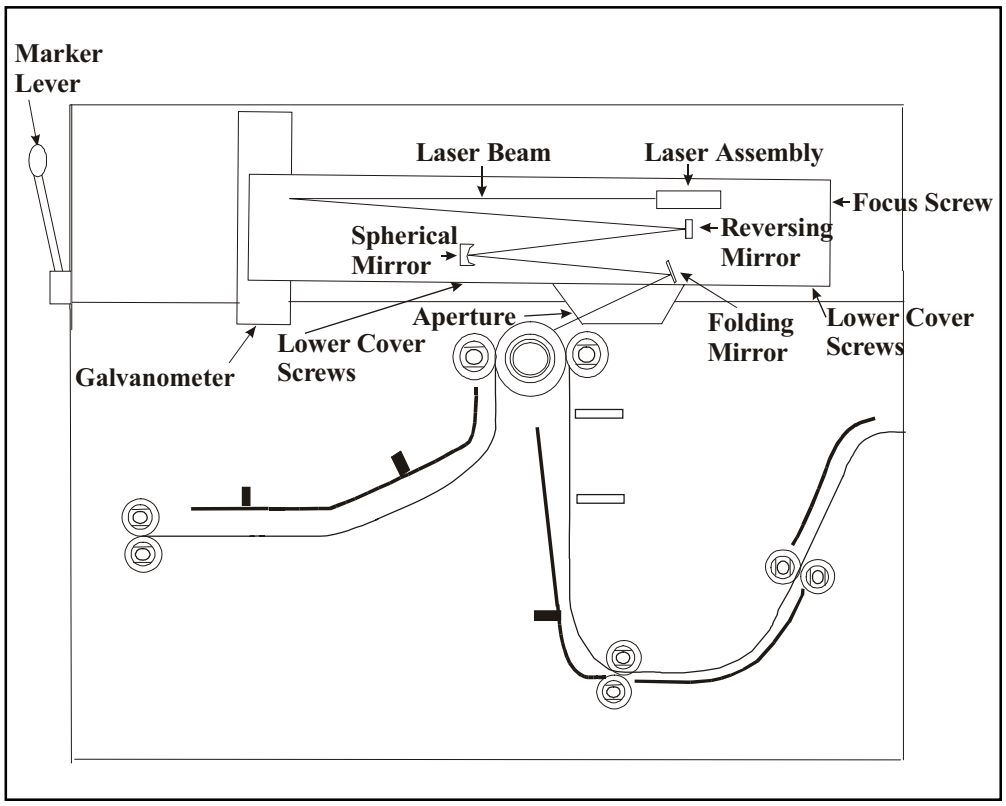


Figure S2-1. Side View of PlateStream 46 Marker & Imager

Inspecting and Cleaning Marker Assembly Unit Mirrors

CAUTION! Marker Assembly mirrors should be inspected and cleaned only if absolutely necessary. The marker unit mirrors have a sensitive surface coating and are easily scratched. Once a mirror is scratched, it is ruined and the entire Marker assembly unit must be returned to Printware for mirror replacement and realignment.

Overview

Under certain conditions, it may be necessary to inspect and clean the Marker assembly mirrors. Carefully check the condition of the marker. Clean only when necessary. Normally, only the folding mirror (the mirror visible through the aperture) requires cleaning. The laser beam is focused down to a small point when it strikes this mirror and is therefore susceptible to interference from dust or other surface dirt.

Procedures to Determine if the Mirrors Need Cleaning

Ensure that all Platesetter Recommended Periodic Maintenance has been performed.

Examine the Platesetter output. The most likely indications of dirty mirrors are light vertical streaks of varying width and vertical lines with fuzzy edges.

Turn off the Platesetter. Open the top cover and raise the marker assembly. Inspect the folding mirror through the marker assembly cover aperture using a flashlight. See Figure S2-1. Examine the mirror for dust.

Cleaning the Folding Mirror Using Compressed Air

CAUTION: Do not remove the Marker Cover at this time. Do not touch the mirror surface with your fingers! Perform this procedure only if:

1) Dust particles can be seen on the Folding Mirror.
2) Printed plates have silver vertical streaks or vertical lines with fuzzy edges.

1. Hold the compressed air canister upright and direct the nozzle or extension tube toward the mirror surface.

2. Gently blow the dust away. Short, quick blasts of air are more effective than continuous spraying.

Getting authorization to remove the Marker Lower Cover

On the marker lower cover are two seals which read “Warranty Void If Seal Broken.” Refer to Figure S2-1.

In situations where the marker is under warranty , the warranty will be void if the marker lower cover is removed without prior authorization. Only Printware authorized technicians may remove the Marker lower cover after receiving authorization from Printware Technical Support.

To obtain authorization to remove the lower cover, contact Printware Technical Support by telephone or FAX message:

Toll-free (U.S.A. only): 1-800-456-1400
FAX Number: (612) 454-3684

Be prepared to provide Technical Support with the following information:
Customer name
Platesetter serial number
Marker serial number
Description of print quality problems you are having
Description of Folding Mirror surface cleanliness
Steps you have taken
Request to remove Marker lower cover to inspect and possibly clean the other mirrors.

If appropriate, Technical Support will authorize you, by telephone or FAX message, to remove the marker assembly unit lower cover to examine the other mirrors and to clean these mirrors if necessary. Technical Support may also offer suggestions to correct the print quality problem, other than mirror cleaning.

Inspecting the Galvanometer Window, the Reversing Mirror, Spherical Mirror, and the Folding Mirror.

Get authorization to remove the marker lower cover. See the previous procedure.

Open the top cover and raise the marker. Remove the marker lower cover by unscrewing the 4 Allen head screws with flat washers located underneath the marker. Refer to Figure S2-1. This will break the "warranty void" seals.

Inspect the surfaces of the galvanometer window, the reversing mirror, spherical mirror, and the folding mirror. Refer to Figure S2-1.

If no dust particles or other particles are present on the mirror surfaces, reinstall the marker assembly unit lower cover. If this is the case, the cause of the plate quality problem is not mirror cleanliness.

If dust particles or other particles are present on the mirror surfaces, then perform the following procedures.

CAUTION: Do not touch the mirror surfaces with your fingers! Perform this procedure only if:
1) Dust particles can be seen on the mirror surfaces.
2) Printed plates have silver vertical streaks or vertical lines with fuzzy edges.

Cleaning the Galvanometer Window, Reversing Mirror, and Spherical Mirror Using Compressed Air.

1. Hold the compressed air canister upright and direct the nozzle or extension tube toward any mirror surfaces that appear dusty.

2. Gently blow the dust away. Short, quick blasts of air are more effective than continuous spraying.

CAUTION: The Reversing Mirror has the most fragile surface. Its surface is preferrably cleaned only with compressed air. Even gentle rubbing using a soft tissue may destroy its surface-coating. Perform this procedure only if:

1) Dust particles can not be removed from compressed air (see above procedure).
2) Spots can be seen on the mirror.
3) Plates have silver vertical streaks or vertical lines with fuzzy edges.

Cleaning the Galvanometer Window, Reversing Mirror, Spherical Mirror, and the Folding Mirror if Compressed Air Does Not Remove the Particles/Spots

1. Soak a clean piece of webril wipe with acetone and very carefully and gently wipe the mirror surfaces that have particles attached to them. Be sure that only the webril wipes comes in contact with mirror surface. Wipe the mirror with a steady slow pace in one direction. Use the same method on the galvanometer window.
Do not clean mirror surfaces or the galvanometer window surface unnecessarily. If a surface is clean, leave it alone. The mirrors and the galvanometer window have thin, fragile surface-coatings that can be very easily rubbed off. Once the surface is rubbed off, the mirror is ruined and the entire marker assembly will have to be returned to Printware for repair.
If spots other than dust particles are present, apply only enough pressure to remove these spots. It is better to "under-clean" than to "over-clean" a mirror surface. If the tissue becomes dirty, use a new piece of tissue soaked with acetone.
2. Examine each surface with a flashlight to ensure that the entire surface is clean.
3. Reinstall the Marker lower cover. Do not operate the Platesetter with the lower cover removed. Lower the marker and close the top cover. Print plates to determine if print quality has improved.

Marker Focus adjustment Procedure

1. At 1200 DPI, image a 12" long, "4 pixel on focus" test plate from the control panel Test Plate Menu.

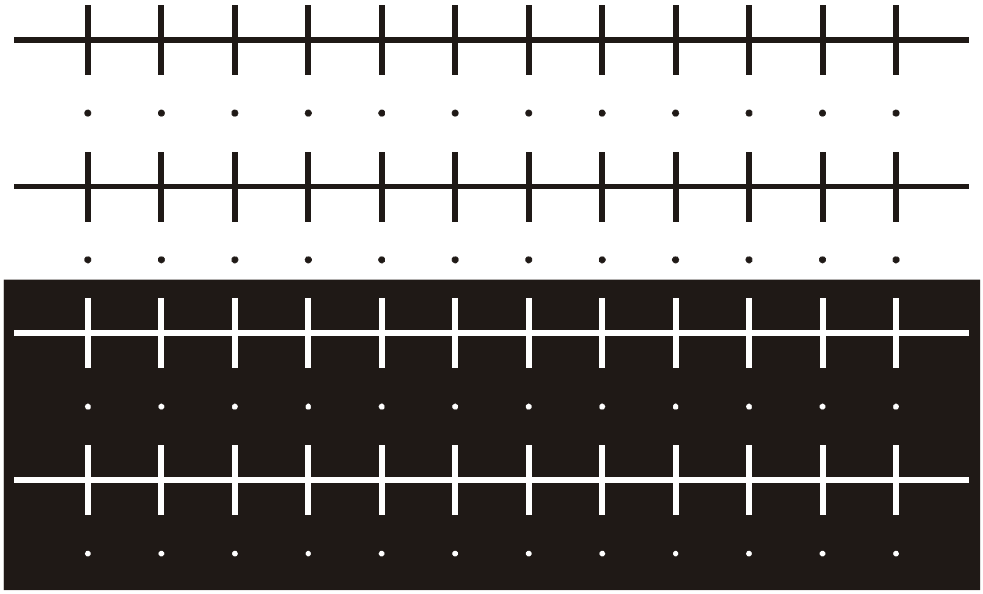
2. Inspect the plate (under an eye loop - **at least** 15 power). Observe the cross hairs and the small dots. Note that there are 2 patterns - one is the negative of the other.

3. Open the imager's top covers & adjust the marker focus screw using a 7/32" allen wrench. Turn the focus screw 3 full turns clockwise (See Figure S2-1). Close covers. Run another "4 pixel on focus" test plate.

4. Compare to previous plate. If the focus pattern looks better, you are turning the focus screw in the right direction. Continue turning the focus screw 2 full turns at a time and re-imaging another focus pattern and observe the results again.

5. If the pattern looks worse, turn the focus screw 6 full turns ccw, close the cover and run another focus pattern.

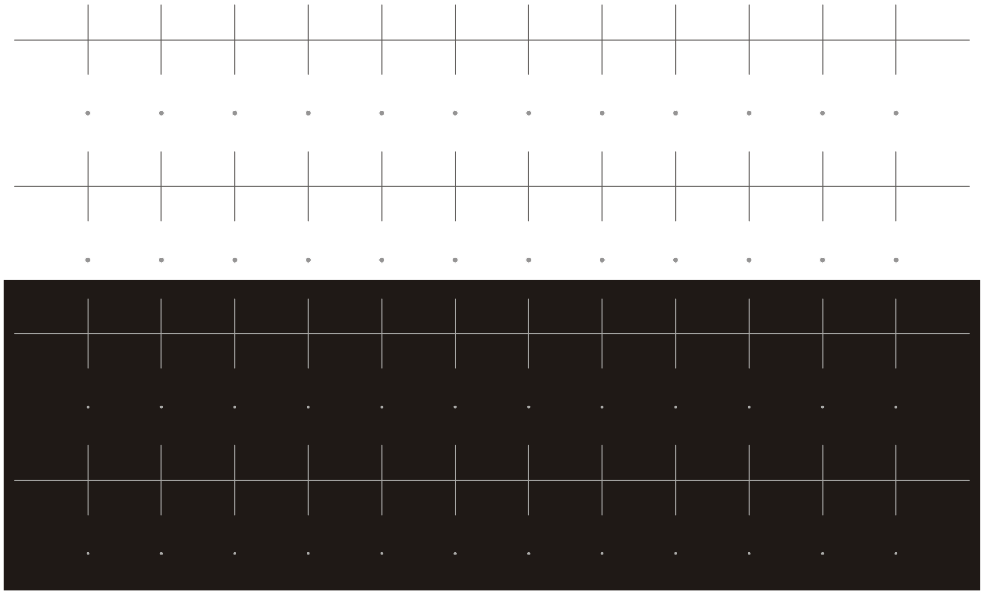
6. Repeat whatever parts of steps 3, 4, & 5 that are necessary until test plates are in focus. Note that there is approximately an 8 to 10 focus screw turn range where the marker is in focus. The best focus will be obtained in the middle of that range.



Note the sharp, clean, **focused** pattern above - vertical and horizontal lines approximately the same width; full, sharp dots in both the positive and negative modes.

4 pixel on focus patterns

Note the fuzzy, **un-focused** pattern below - vertical and horizontal lines are fuzzy and may not be the same width, dots are fuzzy and small or even non existent.



Processor Section

Operation

Safeguards

1. Do not spill liquids into the electrical compartment or on other electrical components. Do not operate the processor if electrical components have been damaged.

2. Disconnect electrical power before servicing the processor.

3. Before handling photographic chemicals, read the manufacturer's handling procedures including the material safety data sheets. Chemicals used in processing are hazardous if handled carelessly.

Systems

Transport: When the leading edge of the plate exits the imager, the processor transport system also starts. Opposed rollers, guides and belts will move the media through the activator and stabilizer racks, dryer and into the receiver tray.

Heating: The solution in the activator tank is heated by a blanket heater attached to the underside of the tank. The heater energizes when power is applied to the processor providing that there is solution in contact with the working-tank level sensor. The solution temperature is maintained by a working-tank temperature sensor. Over-temperature protection is provided for by means of a thermostat in the blanket heater. The dryer heater energizes when imaging starts and de-energizes a few seconds after the last plate falls into the receiver. The dryer temperature is maintained at the set point by means of a sensor in the dryer chamber. Over-temperature protection is provided for by a thermostat in the heater assembly.

Replenishing: Replenishment occurs when the media is depressing the switch in the dryer. The media travels at 37 inches/minute (94 cm /minute) and the pump can be adjusted to replenish a certain amount for each plate. There is a 10-turn adjustment screw on each pump; turn clockwise to increase the flow rate. Sensors are in the replenishment tank (see figure S2-2).

NOTE: If the effluent tank accessory is being used, and the tank is full, the replenisher pumps will not run.

Controls

Prime Pump On the control panel Run Hardware Menu: Used to activate the pumps. They will run for 5 minutes and then stop.

Reset: Used to clear all systems and prepare the processor section for a new job.

Quarterly Maintenance:

To run the processor with the top cover open, use the Printware switch part number 807256-001. Insert flat edge of switch with finger locking into the hole on the side of the interlock bracket. The black interlock bracket is located in the rear of the Platesetter above the processor dryer. (See Figure S2-2).

1. Open the top cover. (See Figure S2-3 and S2-4). Inspect all gears and bearings for wear.

2. Make sure that the dryer drive belt is tight. If the dryer belt is jumping, loose, or is sagging it can be tightened by adjusting the bracket on the side rail. Loosen the two screws in the bracket and move towards the solution racks to snug up the drive belt. Tighten the two screws.

3. Make sure that the dryer drive clutch is not slipping or the dryer rollers are rotating slower than the solution rack. Tighten the dryer clutch by turning the nut at the end of the shaft clockwise.

4. Check to see that there is a slight (0.01" to 0.03"; 0.03 to 0.08 cm) end play in the rack rollers. To adjust for this play loosen the set screws in the gears, moving the gears on the roller shafts and tighten set screws.

5. Check the dryer belts for wear or cracks.

6. If there is excessive vibration, check for damaged motor mounts.

7. Check to see that rack gears are properly seated into the drive shaft worm gear. The teeth should be engaged at least half way but not be bottoming out. The drive shaft can be adjusted by loosening the bearing block screws at each end, adjusting the shaft position and tighten block screws.

8. Check and tighten hose clamps.

9. Check drain and replenishment line for restrictions.

10. The drive motor, replenisher pump motor and the blower motor do not need to be lubricated.

11. Drive motor assembly removal. Remove the wire tray located on the right side of the Platesetter. Remove the right exit panel by unscrewing the four screws holding this panel. Remove drive motor by unscrewing the three screws holding the drive motor plate to the chassis. Disconnect the 2 drive motor leads and unfasten the motor ground wire. Take the drive belt off of the drive shaft by rotating the shaft and deflecting the belt off of the pulley.

12. Check to verify that the solution is 86°F (30°C) nominal activator temperature. The activator temperature can be changed by adjusting a potentiometer (R42) on the PC board. Turning the screw clockwise increases the temperature, if the potentiometer is blue. Turning the screw counterclockwise increases the temperature if the potentiometer is grey.

13. Check to verify that the dryer temperature is 115°F (46°C) nominal. The dryer temperature can be changed by adjusting a potentiometer (R43) on the PC board. Turning the screw clockwise increases the temperature, if the potentiometer is blue. Turning the screw counterclockwise increases the temperature if the potentiometer is grey.

14. Printed circuit board removal. Remove the wire tray located on the right side of the Platesetter. Remove the right exit panel by unscrewing the four screws holding this panel. Disconnect all the connectors. There are nine quarter-turn plastic standoff screws that hold the board on the printed circuit board bracket. Rotate these screws 1/4 turn to free the board.

15. Dryer heater-element removal. Remove the wire tray located on the right side of the Platesetter. Remove the right exit panel by unscrewing the four screws holding this panel. Remove the blower and mounting bracket. There are 4 rubber isolators used to mount this assembly. Remove the vertical cover panel that forms a part of the dryer plenum. The heater is mounted on the inside of this cover.

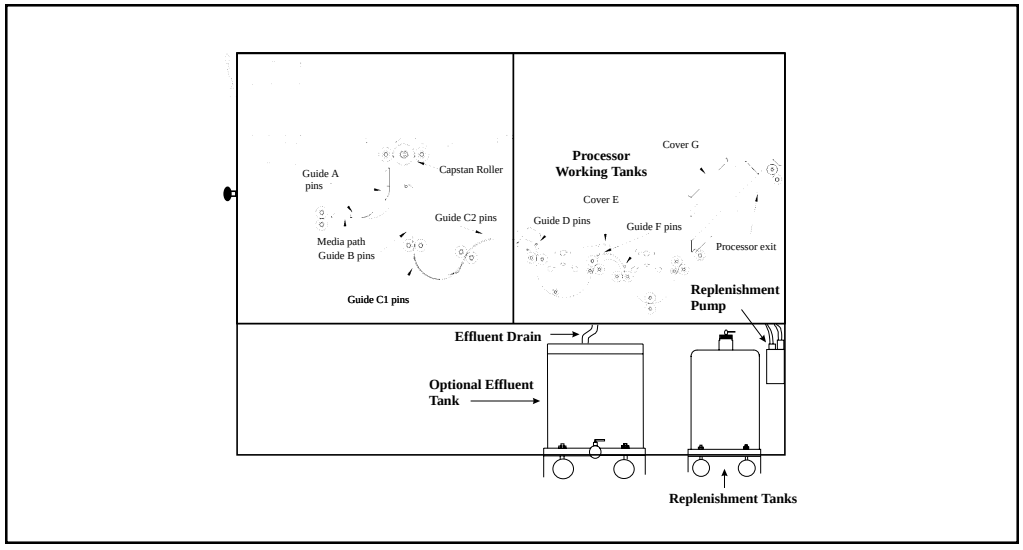


Figure S2-2 Location of Platesetter Rollers and Replenishment Pump

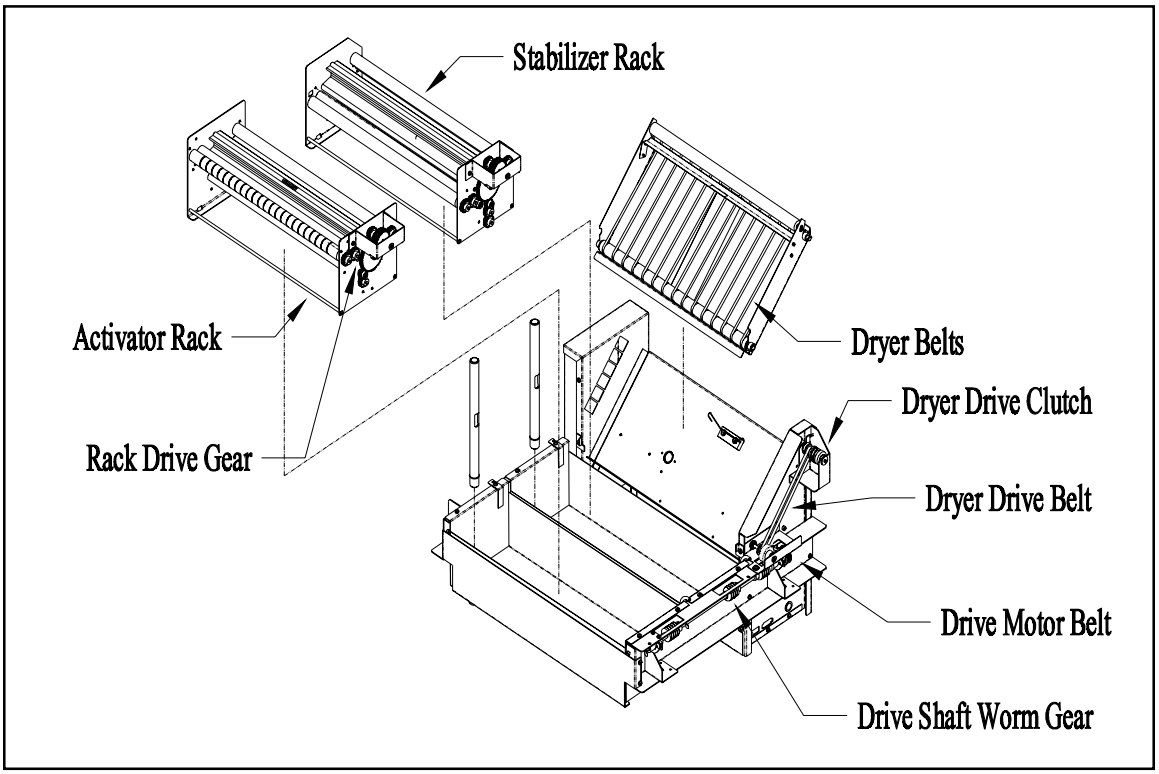


Figure S2-3 View of the Processor

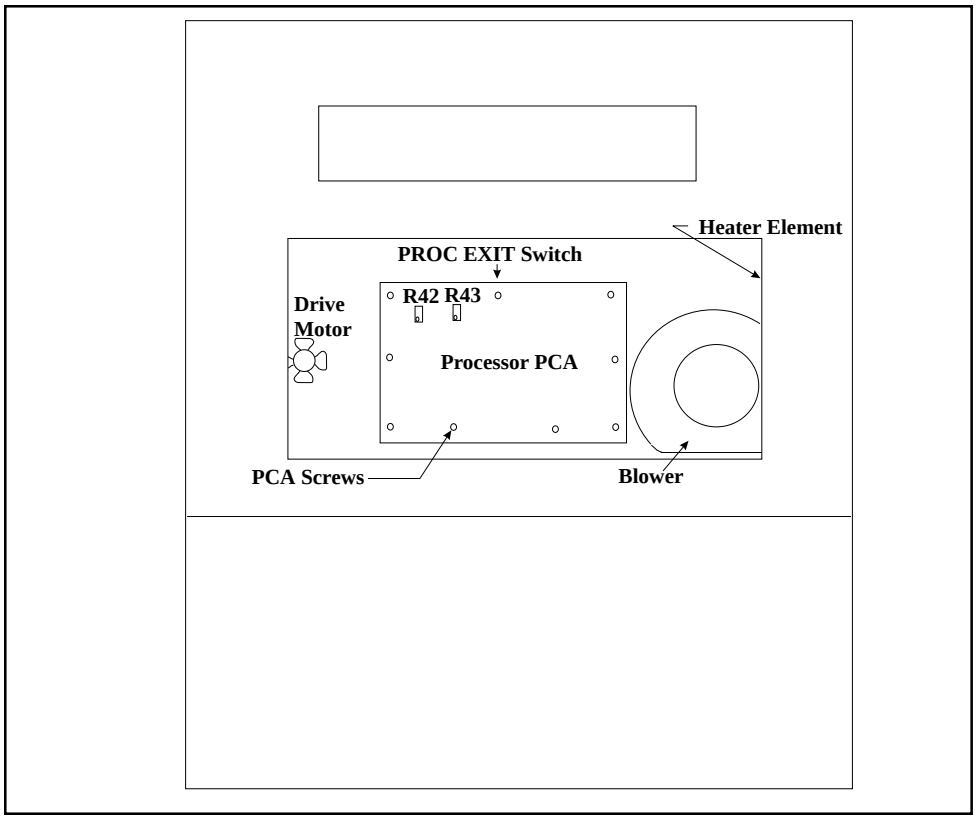


Figure S2-4. Right Side View of the PlateStream 46 Platesetter

This page intentionally left blank.

CHAPTER 3

COMPONENT REPAIR AND REPLACEMENT

Replacing Rollers, Belts, Motors, and Cutter

Overview

This section provides the procedures for removing and reinstalling the following 20 rollers (see Figure S2-2).

- Two feed rollers (upper and lower)
- Two pinch rollers (left and right)
- One capstan roller
- Two imager exit rollers (upper and lower)
- Thirteen processor rollers

NOTES:

1) When removing rollers, label all spacers in terms of front or rear if any, and which roller they were used with. For the Platesetter to function correctly, all spacers must be placed back in their original positions.

2) When replacing rollers, note that the new roller shaft may not be precisely the same length as the old roller shaft. Install the spacer(s) on the rear of the shaft with the required thickness to eliminate any front to rear play. Spacers are available in four thicknesses:

0.016″ (0.4 mm nominal) Part # 900254-006 Spacer, Inner Shaft, 3/8 ID x.016 Th
0.048″ (1.2 mm nominal) Part # 900359 Spacer, .375 ID x .047 Th
0.063″ (1.6 mm nominal) Part # 900254-003 Spacer, Inner Shaft, .0630.,065 Th
0.092″ (2.3 mm nominal) Part # 900359-001 Spacer, .375 ID x .093 Th

Replacing the Feed Rollers (Lower and Upper), Feed Stepper Motor and Feed Motor Belts (See Figure S3-1).

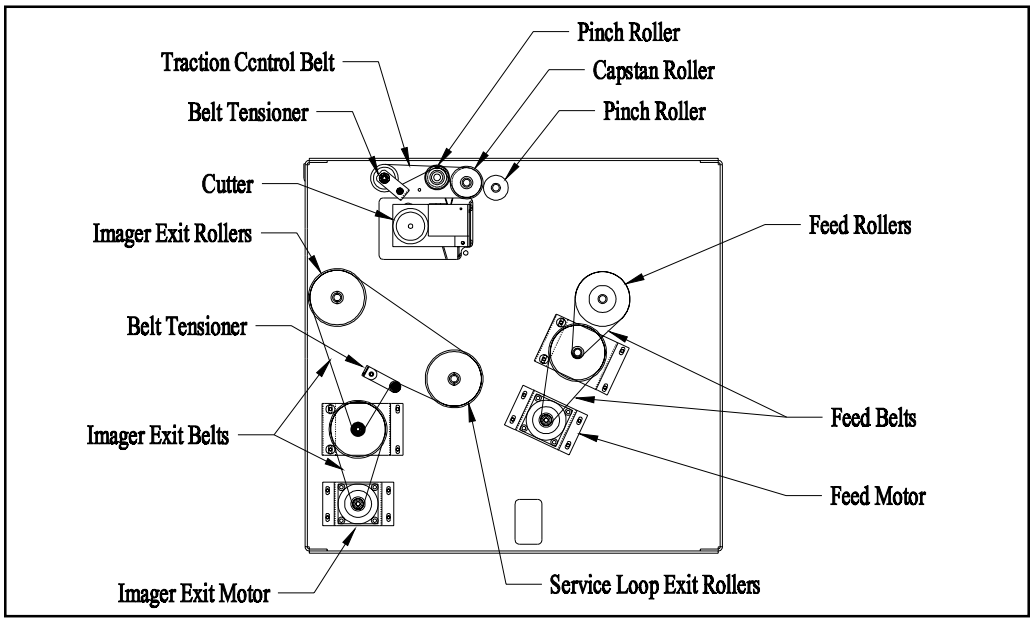


Figure S3-1. Back View of the Imager

1. Open the top cover and raise the marker assembly. Remove the back panel.

2. Remove the bracket holding the pulley by unscrewing the three screws holding the bracket. Remove the bracket holding the motor by unscrewing the four screws holding the bracket.

3. Rotate the I shaped bracket located behind the pulley 90° and then slide the belts off of the gears.

4. To replace the belts, install the new belts in reverse order.

5. To replace the motor, disconnect the cable from the motor. Remove the motor from the bracket. Install the new motor in reverse order. Adjust the drive belt tension by adjusting the set screw on the motor shaft and/or pulley shaft.

6. To replace the rollers, remove the pulley from the shaft by loosening the two set screws. Remove the E-clips and spacers (if any) from each end of the lower shaft. Remove the bushings from each end of the roller shaft. Access the rollers from the top of the Platesetter. Remove the upper roller by sliding the roller towards the rear of the Platesetter until it clears the frame. Remove the lower roller by sliding the roller towards the front of the Platesetter until it clears the frame. Install the new rollers in reverse order.

7. Replace the back panel, lower the marker assembly and close the top cover.

Removing the Pinch Rollers (Left and Right) (See Figure S3-1).

1. Open the top cover and raise the marker. Remove the front and rear panel.

2. Remove the traction control belt from the pinch and capstan rollers by pushing the belt tensioner to your right.

3. Remove the E-clips, spacers (if any), and bushings from each end of the pinch roller shaft.

4. Remove the spring loaded tensioner from each end of the roller shaft by removing the hex nut.

5. Access the shutter from the top of the Platesetter. Loosen the four screws on the shutter to access the roller. Remove the roller by sliding the roller towards the rear of the frame until it clears the frame.

6. Install the new roller in reverse order. Lower marker assembly and close the top cover.

Removing the Capstan roller and Capstan Drive Assembly (See Figure S3-1, S3-2)

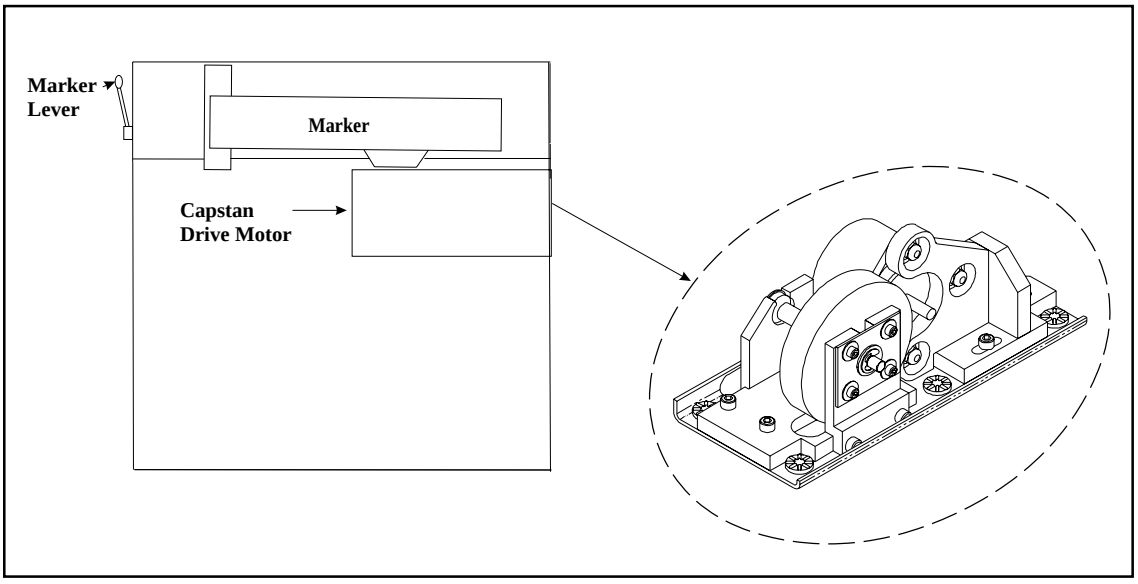


Figure S3-2. Location of the Capstan Drive Motor

1. Open the top cover and raise the marker. Remove the front and rear panels.

2. Remove the pinch rollers. Refer to the previous procedure.

3. Access the capstan drive assembly from the front of the Platesetter. Remove the bracket covering the capstan drive assembly by unscrewing five screws. Disconnect the cable from the capstan drive assembly. Remove the capstan drive assembly by removing the three screws holding the bracket. Slide the belts off of the capstan roller. These screws are located underneath the capstan drive assembly.

4. To replace the belts, remove the E clip and bearing from the capstan drive assembly. Install the new belts in reverse order.

5. To replace the motor, remove the three screws holding the motor. Install in reverse order.

6. To replace the capstan roller, remove the shutter assembly (located above the capstan roller) by removing four screws, two on each side attached to the Imager, and removing two shoulder screws located on solenoid underneath the shutter assembly. Remove the following parts from the rear end of the Capstan roller shaft:

- jam nut
- 2 wave washers
- spacer
- roller bearing
- bearing clip (removing two hex nuts)

Remove the following parts from the front end of the capstan roller shaft.

- pulley (removing Allen screw)
- bearing clip (removing two hex nuts)

Access the Capstan roller from the top of the Platesetter. Remove the five E-clips. Remove the roller by sliding the capstan roller toward the front of the frame until the rear of the roller shaft clears the frame. Install the new Capstan roller in reverse order. Lower the marker and close the top cover. Replace the front and rear panels.

Replacing the Service Loop Exit Rollers (See Figure S3-1).

1. Open the top left cover and raise the marker assembly. Remove the rear and front left panels.

2. Rotate the belt tensioner down and then slide the long Imager Exit belt off the pulley.

3. Remove the pulley from the shaft by loosening the two set screws. Remove the E-clips and spacers (if any) from each end of the roller shaft. Remove the bushings from each end of the roller shaft. Access the upper roller from the hole in the front of the Platesetter. Access the two shoulder screws holding the guide below the upper roller from the front and rear of the Platesetter and remove. Remove upper roller by sliding towards the rear of the Platesetter until it clears the frame. Access lower roller from the hole in the front of the Platesetter. Remove the lower roller by sliding towards the rear of the Platesetter until it clears the frame.

4. Install the new rollers in reverse order. Replace the panels, lower the marker, and close the top left cover.

Replacing the Imager Exit Rollers, Imager Exit Motors, and Imager Exit Belts

1. Open the top cover and raise the marker assembly. Remove the back panel.

2. Rotate the belt tensioner down and then slide the long imager exit belt off the pulley.

3. Remove the bracket holding the pulley by unscrewing the three screws holding the bracket. Remove the bracket holding the motor by unscrewing the four screws holding the bracket.

4. Rotate the I-shaped bracket located behind the pulley 90° and then slide the belts off of the gear.

5. To replace belts, install new belts in reverse order.

6. To replace motor, disconnect the cable from the motor. Remove the motor from the bracket. Install new motor in reverse order. Adjust drive belt tension by adjusting set screw on the motor shaft and/or pulley shaft.

7. To replace rollers, remove the pulley from the roller shaft by removing E-clip. Remove the E-clips and spacers (if any) from each end of the lower shaft. Remove the bushings from each end of the roller shaft. Access the upper roller from the top of the Platesetter. Remove Guide C by pressing down on the four pins. Remove the upper roller by sliding towards the rear of the Platesetter until it clears the frame. Access the lower roller from the front side of the PlateStream. Press down on the two Guide B pins and swing Guide B to the left. Remove the lower roller by sliding towards the front of the Platesetter until it clears the frame.

8. Install the new rollers in reverse order.

Cutter Assembly

Construction of the Cutter Assembly (See Figure S3-1).

The cutter assembly consists of a frame, DC motor, and position sensor.

1. Open the top cover and raise the marker.

2. Disconnect the cutter cable assembly.

3. Remove the 4 Allen head screws which hold the cutter to the plate.

4. Access the cutter assembly from the top of the Platesetter and remove.

5. Install the new cutter in reverse order. Replace the rear panel. Lower the marker and close the top cover.

Replacing the Processor Rollers (See Figure S2-2, S2-3).

There are thirteen rollers, six in the activator rack and seven in the stabilizer rack.

1. Open the top cover.

2. Remove Cover E. Remove Guide F by pressing guide towards the rear of the Platesetter, lift guide from the front of the Platesetter and remove. Remove Guide D by pressing the guide towards the front of the Platesetter, lift the guide from the back of the Platesetter and remove.

3. Remove the rack from the Platesetter.

4. Remove the gear from roller by loosening one set screw. Remove the spring (if any) and the bearing (if any).

5. Remove the roller by sliding the roller towards the front of the rack until it clears the frame.

6. Install the new roller in reverse order. Close the top cover.

Replacing the Marker Unit

CAUTION: The Marker Housing contains potentially harmful invisible laser energy. Do not attempt to open the inner covers, other than described in this manual.

Construction and Function of the Marker Assembly Unit

The marker assembly unit consists of a frame, top cover, lower cover, laser/lens assembly, galvanometer, reversing mirror, spherical mirror, folding mirror, SOS sensor, and SOT sensor. The laser diode produces infrared light and is highly sensitive to ESD damage. The galvanometer resonates at 540 Hz in a sealed vacuum chamber.

The marker assembly unit is mounted in an outer frame, which is attached by two hinge assemblies to the Imager section chassis. The controller PCA is mounted on the top of the marker assembly unit.

There is a lithium battery backup RAM on the controller printed circuit board (U178 on 522980-XXX), located on the top of the assembly. This RAM/lithium battery is not field replaceable.

Refer to the PlateStream 46 Platesetter Installation Guide for the installation of a new marker. When a new marker assembly unit is installed in a Platesetter, the new marker assembly unit calibration settings must be stored in the non-volatile SRAM memory by the controller PCA. This section describes the calibration-setting storing procedures.

Recalibrating the Marker/Controller PCA

At the main menu press **'4'** to access the More Information menu. Press **'2'** to access the Calibrate menu. Press **'2'** to calibrate Marker.

The control panel will display "are you sure?" Pressing *ESC* exists this menu without changing the marker calibration. Pressing *ENTER* will cause the control panel to display "Power Cycle," which means to turn the machine off then back on.

CHAPTER 4

REPLACING ELECTRONIC COMPONENTS

Introduction

Signals output by the RIP are received by the controller PCA, mounted on top of the marker. Instructions and acknowledgments are acted on accordingly. The controller PCA controls power to the laser and drive current sent to the galvanometer.

The data signals sent to the controller PCA cause the circuitry to turn the laser on and off, while the galvanometer sweeps the laser light back and forth across the plate surface, to selectively expose portions of the plate material passing under the aperture.

The engine stepper PCA precisely controls the timing of drive signals sent to the various motors within the Imager section to coordinate the feeding, imaging, and cutting of the plate material.

The control panel PCA accepts signals from the interface PCA, controller PCA, and from the human operator (via the keys on the control panel) to control and report Platesetter functions and conditions. There are four PCAs and one power supply assembly within the imager half of the Platesetter. These are:

•Controller PCA
•Interface PCA
•Engine Stepper PCA
•Control Panel PCA
•Power Supply Assembly

This chapter provides the following information for each PCA:

•location
•voltages
•connector and pin assignments
•replacement instructions

This chapter also includes information about the sensors.

NOTE:
There are no procedures for replacing the SOS and SOT sensors. The SOS and SOT sensors are part of the marker assembly, and are not replaced separately.

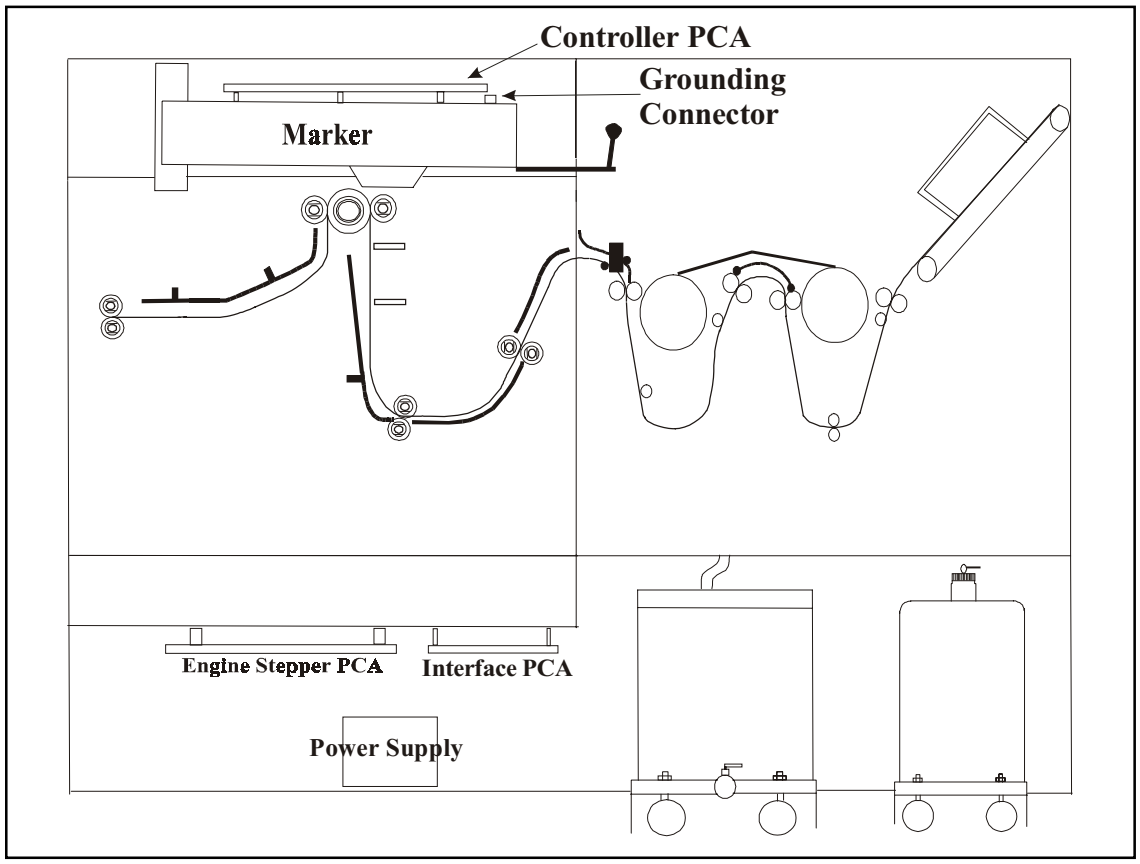


Figure S4-1. Location of the PCAs

Controller PCA

Location and Function

The controller PCA is attached to the top of the marker (See Figure S4-1). Controller PCA electronics perform the following functions:

•control data transmission from RIP to Platesetter
•control laser intensity

•control laser data rate
•monitor all sensors
•control galvo
•control motors

The non-volatile SRAM memory of the controller PCA stores the total plate count, the image quality settings (specified using the Manual Setup menu on the control panel) for both polyester and paper plate material, the image position settings, and the calibration settings.

Voltages Supplied to Controller PCA

+5 VDC (to power all integrated logic chips)
+24 VDC
+12 VDC
-12 VDC

Connector Assignments

J1 Laser power and control
J2 Not used
J3 Not used
J4 Not used
J5 Not used
J6 Power
J7 Laser safety interlock switch
J8 Imager Processor Interface
J9 Interface PCA/control panel communication cable
J10 Galvanometer control
J11 SOS/SOT sensors
J15 Not Used
J16 Not Used

Replacing the Controller PCA

The non-volatile SRAM on the controller PCA stores the total plate count, image quality settings, image position settings, and marker assembly calibration values. All of this information will be lost when the controller PCA is replaced. If possible, look through all the menus on the control panel before replacing the controller PCA and write down all the settings. Image quality and position settings can be re-entered from the control panel after the PCA is replaced. The plate count and material used count will start over from zero, so keep a record of the values read from the old controller PCA with the Platesetter. The marker assembly calibration values will be regenerated during the marker assembly calibration procedure. If the image settings and plate count values cannot be read (due to a massive controller PCA failure), use the information from the customer's operator log for resetting these values.

Before beginning the replacement procedure, record the following information (punch and 2400 dpi values are applicable only if those options are installed):

	Resolution			
	900	1200	1800	2400
Cut Length	_____	_____	_____	_____
Overlap Length	_____	_____	_____	_____
Backup Length (Punch off)	_____	_____	_____	_____
Backup Length (Punch on)	_____	_____	_____	_____
Punch Length (Punch on)	_____	_____	_____	_____
Miniplate Backup Length	_____	_____	_____	_____
Image Power (Processor & Mini Plate)	_____	_____	_____	_____
Image Power (Cassette)	_____	_____	_____	_____
MT Speed	_____	_____	_____	_____

1. Turn off the Platesetter and open the top cover.

2. Replace the controller PCA as follows:

CAUTION! Follow ESD-protective procedures carefully. Refer to page 1-1 if necessary.

a) Remove the gold shield by unscrewing four screws and washers.

b) Disconnect J1 (the laser diode connector) first, and immediately connect the cable to the brown grounding connector located underneath the PCA on the right side of the marker assembly frame. See Figure S4-1. This prevents damage to the highly sensitive laser diode.

c) Disconnect all cables from the controller PCA. Note the correct orientation of each cable.

d) Unscrew the four standoffs holding the controller PCA. Carefully remove the controller PCA from the top of the marker assembly by squeezing the five plastic standoffs holding the controller PCA.

Note: Always transport and store PCAs in anti-static bags.

3. Install the new PCA in reverse order.

4. Recalibrate the marker assembly/controller PCA as follows:

At the main menu move the cursor to position “4” or simply press 4 to access the More Information menu. Once inside this menu move the cursor to “2” or simply press 2 to access the Calibrate menu. In this menu move the cursor to “3” or simply press 3 to access the Calibrate Marker assembly menu. The control panel will display “are you sure”. Pressing ESC exits this menu without changing the marker assembly calibration. Pressing ENTER will cause the control panel to display “Power Cycle” which means to turn the machine off and then back on.

5. Close the top cover.

Interface PCA

Location and Function

The interface PCA is located underneath the imager towards the front. See Figure S4-1.

The interface PCA acts as an interface between the controller PCA and the Platesetter engine assemblies. The interface PCA also receives the signals from the various sensors within the Platesetter.

The interface PCA also sends control signals to the engine stepper PCA to activate the stepper motors.

Voltages Supplied to Interface PCA

+12 VDC
-12 VDC
+5 VDC
+24 VDC

Connector Assignments

J1 Not used
J2 Not used
J3 Track change solenoid
J4 Not used
J5 Shutter solenoid
J6 Micro stepping controller
J7 Not used
J8 Not used
J9 Not used
J10 Not used
J11 Engine stepper PCA
2 Controller PCA/control panel communication cable
J13 Not used
J14 Processor communication cable
J15 Sensors
J16 Power Supply

Replacing the Interface PCA

1. Turn off the Platesetter and remove the front panel.

2. Replace the interface PCA as follows:

   a) Access the interface PCA from the front of the Platesetter. Remove the plastic shield by unscrewing the four nuts and washers holding the shield.

   b) Disconnect all cables. Note the correct orientation of each cable.

   c) Carefully remove the interface PCA by unscrewing the 4 standoffs which attach the interface PCA to the chassis.

   d) Install the new interface PCA in reverse order. Replace the front panel.

Engine Stepper PCA

Location

The engine stepper PCA is located underneath the right side of the imager mounted on the side of the chassis (see Figure S4-1).

The engine stepper PCA provides power and control signals to the feed motor, capstan motor, exit motor, and cutter motor.

Voltages Supplied to the Engine Stepper PCA

+24 VDC (stepper motor power)
+5 VDC (signal logic)

Connector Assignments

J1 Cutter stepper motor
J2 Exit stepper motor
J3 Feed stepper motor
J4 Not Used
J5 Power (in from power supply drawer)
J6 Not Used
J7 Interface PCA

Replacing the Engine Stepper PCA

1. Turn off the Platesetter.

2. Remove the front panel.

3. Access the Engine Stepper PCA from the front of the Platesetter. Disconnect the six cables from the engine stepper PCA. Note the correct orientation of each cable.

4. Carefully remove the Engine Stepper PCA by removing the 4 nuts securing the engine stepper PCA to the chassis.

5. Install the new PCA in reverse order. Replace front panel.

This page intentionally left blank

Power Supply Assembly

Location

The Power Supply assembly is located underneath the Imager. (See Figure S4-1). The power supply provides all DC power within the Platesetter, and also provides AC power. The circuit breaker prevents high current from damaging the Platesetter electronics.

Components

The power supply contains a PCA which is responsible for distributing the correct signals within the Platesetter. The connectors and other items on the external portion of the power supply drawer are described below.

- Power on/off switch
- Circuit Breaker (20 amp)
- Outlet (incoming) power connection
- Connector J1 engine stepper PCA
- Connector J4 controller microstepper/fan
- Connector J5 interface and operator panel PCA's

Replacing the Power Supply Assembly

1. Turn the Platesetter off and unplug. Remove the rear panel.

2. Disconnect the cables from the power supply. Note the orientation of each cable.

3. Access the power supply screws by opening the bottom front doors. Remove power supply by unscrewing the nine screws and pull power supply out of the Platesetter from the rear.

4. Install the new power supply in reverse order. Replace the rear panel and close bottom front doors.

Sensors

The sensor Status menu indicates the current digital status of all Platesetter sensors. Explanation of all the sensor indications are shown below.

LOAD KNOB – This sensor is activated when the load knob is pushed. A '**0**' indicates the knob is pushed in; '**1**' indicates the load knob is pulled out.

FEED LOOP – Indicates the status of the service loop sensor in the feed area of the Platesetter. **'1'** indicates that a loop is formed, **'0'** indicates that a loop is not present.

EXIT LOOP – Indicates the status of the exit loop sensor in the exit section of the Imager. **'1'** indicates that a loop is formed, **'0'** indicates that a loop is not present.

IMAGER EXIT – Indicates the presence of media at the imager exit. A **'1'** indicates the media is present (*e.g.,* during imaging). A **'0'** means the sensor is clear–this is the normal idle condition.

NO MEDIA – Identifies the amount of media in the spool as okay or none. A **'0'** indicates that the media supply is empty, **'1'** indicates that the amount is sufficient.

LOAD OK – Indicates the status of media loading. A **'1'** indicates the media is loaded, a **'0'** indicates the media is not loaded.

GUIDE B – Indicates the presence of media at Guide B. A **'1'** indicates that media is present (*e.g.,* during imaging). A **'0'** indicates the sensor is clear. This is the normal idle condition.

WRKNG TANK LOW – This sensor monitors the solution level in the working tanks within the processor. A **'0'** indicates the current level is okay; a **'1'** indicates a low solution level in one or both of the tanks.

REPLN TANK LOW – This sensor monitors the solution level in the replenishment tanks underneath the processor. A **'0'** indicates the current level is okay; a **'1'** indicates a low solution level in one or both or the tanks.

EFL TANK HIGH – This sensor monitors the level of spent solution in the optional effluent tank underneath the processor. A **'0'** indicates the current level is okay, a **'1'** indicates the tank needs to be emptied.

PROC TEMP OK – The processor Activator Temperature sensor monitors the temperature of the Activator bath. A **'0'** indicates that the current temperature is okay; a **'1'** indicates that the bath is still warming up, or that there is a problem with the heater.

PROC EXIT – Indicates the presence or absence of media at the processor exit sensor. A **'1'** indicates that media is present (*e.g.,* during imaging). A **'0'** indicates the sensor is clear. This is the normal operating condition.

EXIT CASSETTE – Identifies the presence of an optional film takeup cassette. A **'1'** indicates the film takeup cassette is present. A **'0'** indicates that the film takeup cassette is not present.

Replacing the Imager Sensors (See Figure S4-2)

1. Remove the front panel.

2. Access sensors from the front of the Platesetter. Disconnect the three-pin connector from the sensor.

3. Remove the sensor by removing the two screws holding the sensor in place.

4. Install new sensor in reverse order. Replace the front panel and close top cover.

(NOTE: The PROC EXIT sensor is located above the processor PCA. See Figure S2-4)

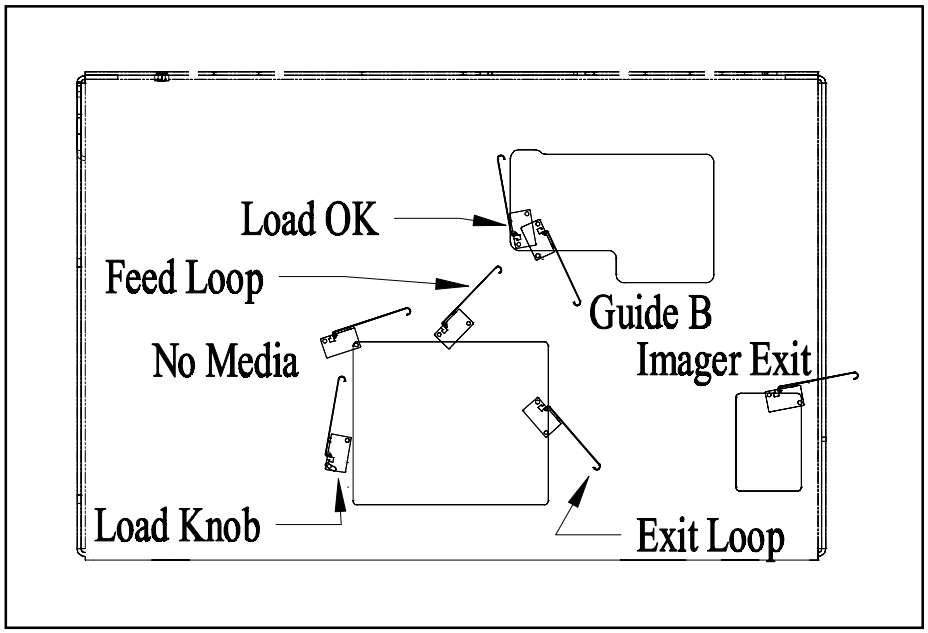


Figure S4-2 Front View of the Imager

This page intentionally left blank.

CHAPTER 5

TROUBLESHOOTING

Introduction

This chapter contains procedures for isolating and correcting Platesetter problems in the field.

CAUTION: *Operations with this symbol require advanced technical training.*

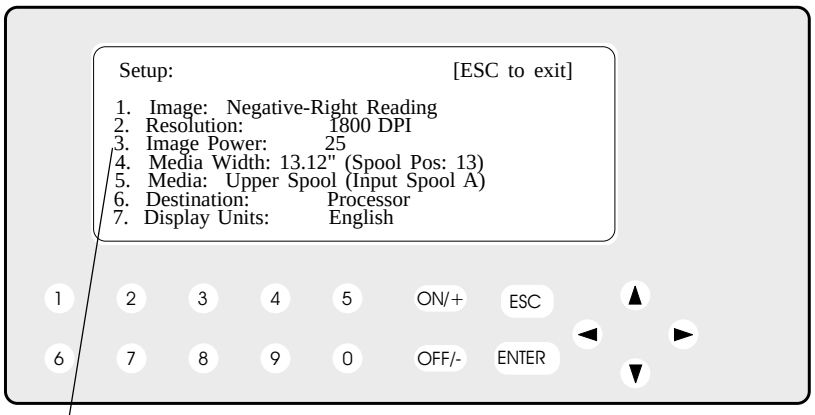
EXPOSURE PROBLEMS

Weak image (broken type or fine lines; pinholes in solids)

1. Verify that exposure is set correctly by checking D_{max} (see **Operator Guide** for details) . Laser power too high can cause text to break up on press output (not the plates).
2. Reduce laser power.

Plugged images or excessive background.

1. Verify that exposure is set correctly by checking D_{max}. Laser power too low can cause plugged images and excessive background on press output (not the plates).
2. Increase laser power.



Setting laser power (setup menu item #3)

EXPOSURE PROBLEMS (...cont.)

Uneven density from center to edges.

1. Calibrate densities.
2. Customized firmware can correct slightly uneven density profiles. Send several half-black/half-white sample plates (from the Operator Panel test plate menu) at the resolution of interest to Printware.
3. Refocus marker.

"Hazing" on fine print or fine lines.

1. Verify that exposure is set correctly by checking D_{max}.
2. Increase laser power
3. Turn laser fogging circuit up (turn potentiometer clockwise 60º or 10 minutes.)
   (Note original potentiometer position. If resetting does not alleviate problem, return to original position.)

Going "around in circles" adjusting laser power

1. Note that increasing laser power on plates increases density in black (non-image) areas, and decreases line thicknesses.
2. Use the following typical Operator Panel laser power settings as a "sanity check":

	Typical laser power setting	
	RED	**INFRARED**
900 DPI	65-85%	50-60%
1200 DPI	55-75%	40-50%
1800 DPI	45-65%	30-40%
2400 DPI	35-55%	20-30%

IMAGE QUALITY PROBLEMS/ARTIFACTS

Thin-line artifacts ("Scan lines")

1. Ensure laser exposure is set correctly.
2. Intermittent horizontal artifacts could be caused by improperly set service loops:
   2.1. Feed loop: Intermittent artifacts beginning approximately 2" down the plate. Adjust the Feed Loop switch.
   2.2. Exit loop: Intermittent artifacts beginning approximately 8" to 10" down the plate. Adjust the Exit Loop switch.
3. Traction control (if installed) may be jumping. This causes irregular horizontal lines.
   3.1. Increase the belt tension by wrapping the spring around one additional turn.
   3.2. Temporarily disable traction control to see if this solves the problem.
4. Noisy capstan motor (causes high-frequency horizontal banding down the whole length of plate).
   4.1. Check capstan motor mounting.
   4.2. Replace capstan motor.
5. Noisy power supply fan (Artifact will be a constant frequency down the page).
   5.1. Check fan motor mounting.
   5.2. Replace power supply fan motor.
6. If unable to diagnose the problem, send two plate samples to Printware for analysis.

Vertical artifacts.

1. Wavy vertical lines throughout media or more severe on the non-operator side of plate, generally low-frequency (on the order of 10 artifacts per inch)--Usually a faulty galvanometer. Replace marker assembly.
2. Wavy, high-frequency (on the order of 100 artifacts per inch) vertical lines concentrated in the middle of the plate--Usually a faulty controller PCA.
3. Well-defined, straight vertical lines--Usually a faulty controller PCA.

IMAGE QUALITY PROBLEMS/ARTIFACTS (...cont.)

Fuzzy or Blurry Image	1. Clean processor and replace chemistry (see Operator Manual). 2. Inspect marker mirrors and clean if necessary (see Chapter 2). 3. Adjust laser focus (see Chapter 2).
White, black, or silver streaks	1. Set Density-Dot calibration (see Installation Guide) 2. Increase exposure (control panel setup menu.) 3. Inspect marker mirrors and clean if necessary (see Chapter 2).
Dirty silver-colored spots	Clean infeed and pinch rollers with D-Ink.

REGISTRATION AND SKEWING

Image length incorrect (too long or too short)

1. Run a Printware “Grid18” from the RIP. Check to be sure scaling in RIP is set at 100%. Then measure.
2. If source of problem is platesetter, errors of less than .250 (3 mm) can be corrected with the Operator Panel length adjustment procedure (see Operator Guide).

Image width incorrect (too wide or too narrow)

1. Run a Printware “Grid18” from the RIP. Check to be sure scaling in RIP is set at 100%. Then measure.
2. If the source of problem is indeed platesetter, errors of less than 1/8" (3 mm) can be corrected by realigning the SOS and SOT sensors.

First plate after a load misregistered on process-color jobs

1. Check loading and guide positions.
2. Consider sending blank or test plates before color jobs to eliminate first-plate skew.

REGISTRATION AND SKEWING (...cont)

Tracking or skewing problems

1. Adjust roller-spring tensions.

(Tools required: tension gauge, pull gauge, or "fish scale").

1.1. Attach a 2"-wide (50 mm) strip of thin (0.004" or 0.005"; 0.1 mm) polyester media to the gauge. Slide the strip between the roller pair to be tested, and measure the force required to pull the media strip out of the roller pairs (force should be the same from side to side).

1.2. Adjust roller tensioner screws on either side of the roller pairs to set correct tension. Correct roller tensions are as follows:

- Infeed rollers: approx. 4 lbs. (18 N)
- First pinch rollers: approx. 4-5 lbs. (20 N)
- Second pinch rollers: 8-14 lbs. (50 N)

(note: tensioner on operator side may look tighter due to the traction control on the back of this roller)

- Exit rollers: approx. 4 lbs. (18 N)

2. If unable to resolve the problem, send sample plates to Printware. (Send four maximum-width grid pattern plates. We can measure and advise on adjustments).

OPERATOR PANEL PROBLEMS

Operator Panel beeps continuously after initialization.

1. Check voltages at controller PCA.
2. Replace Operator Panel.

Note: The machine is designed to beep continuously every 5 seconds if a job is sent with an unsupported resolution.

Buttons on Operator Panel don't work, or are "touchy."

1. Re-seat cables in J1 and J2 on the Operator Panel.
2. Wiggle the Operator Panel cables to determine whether there is a short in a cable.
3. Replace Operator Panel assembly.

Operator Panel blanks out occasionally when loading media.

1. Install static control kit if not already in place.
2. Check for faulty power supply.
   2.1. From the Operator Panel, turn on all motors and cycle the cutter several times. If the Operator Panel blanks out, the power supply is being overloaded. You can increase the voltage by removing the power supply and turn the 5V potentiometer 2 hours (60º) clockwise.
   2.2. If adjusting the 5V does not solve the problem, replace the power supply assembly.

Operator Panel "locks up"

1. Install static control kit if not already in place.
2. Replace the Operator Panel assembly.

MARKER/GALVANOMETER PROBLEMS

For all galvanometer errors, recycle the platesetter to clear spurious errors. If errors persist, use the following steps before replacing the marker assembly.

Galvo initialization stops at:

00	1. Check cables between controller PCA and marker assembly. 2. Check controller PCA and power supply voltages. - Check voltages at power supply. - Check fuses and replace if necessary. - Replace Power Supply if necessary. 3. Calibrate the marker. 4. Replace the controller PCA. 5. Replace marker assembly.
02	1. Check galvo connector (J14) on the controller PCA. 2. Check voltage across R267 or R266 on the controller PCA. 3. Calibrate marker. 4. Replace controller PCA.
03	1. Check galvo connector (J14) on the controller PCA. 2. Calibrate the marker. 3. Replace the controller PCA.
05	1. Check the laser diode (J1) and the safety interlock (J7) connectors on the controller PCA. 2. Calibrate the marker. 3. Replace the controller PCA.
07	1. Check SOS/SOT connectors on the controller PCA. 2. Check SOT sensor alignment. 3. Calibrate the marker. 4. Replace controller PCA. 5. Replace marker assembly.
10	1. Calibrate the marker. 2. Replace the controller PCA.

MARKER/GALVANOMETER PROBLEMS (...cont.)

"Marker hold" error message

1. Turn up fogging circuit, clockwise, ¼ turn maximum. (Note original potentiometer position. If resetting does not alleviate problem, return to original position.)
2. Realign SOS and SOT sensors
   - Turn SOS screw 1 full turn clockwise.
   - Turn SOT screw 1 full turn counterclockwise. (Note original screw positions. If realigning sensors does not alleviate problem, return to original positions.)
3. Replace marker assembly.

GENERAL IMAGER PROBLEMS

Platesetter spontaneously "reboots."

1. Check AC voltage. The specification is 200 - 264 Volts; 50/60 Hz.
2. Protect against AC power glitches.
   2.1. Check for correct AC power wiring, especially grounding.
   2.2. Install AC power conditioner.
3. To diagnose intermittent DC problems, track platesetter state at time of reboot (*e.g.*, was cutter cutting, punch punching, processor starting?)

"Power out of spec" message

1. Check fuses in power supply.
2. Check voltages at controller PCA. Specifications are 5 - 5.25V; $\pm$12 $\pm$ 0.6V; and 24 $\pm$ 1.2V.

Platesetter is on-line but will not start a job.

1. Check the I/O cable from the RIP.
2. Power cycle the Platesetter.
3. Reset the RIP.
4. Replace the controller PCA.

On Dual Cassette model, Lower cassette unload does not stop after switching to upper cassette.

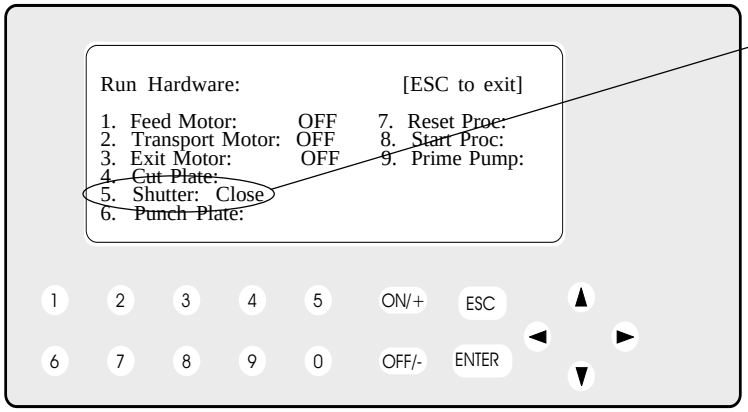
1. Verify that the lower cassette is properly loaded.
2. Check lower Load OK switch and cable.
3. Adjust lower Load OK switch.

GENERAL IMAGER PROBLEMS (...cont.)

All silver plates
(Shutter problems)

(All-silver plates usually indicates the shutter isn't opening properly.)

1. Check to make sure the correct media is used for printing and the emulsion side is up.
2. Check that the shutter spring is in place and operating.
3. Verify that the shutter plate isn't hitting the capstan roller. To adjust, loosen screws on the outside of the transport on the operator and non-operator side. Adjust the shutter plate to 1/32" to 1/16" (0.8 to 1.6 mm) from the capstan roller



4. Open and close the shutter from the Operator Panel hardware menu.

4.1. If the shutter solenoid isn't operating, check the solenoid with an ohmmeter for a short or open (its resistance should be approximately 55 ohms). If the solenoid is open or shorted, replace the solenoid.

4.2. If the solenoid is OK but not being actuated, replace the interface PCA.

4.3. If the solenoid is actuating, but the shutter isn't fully opening, check that the moveable arm moves freely.

4.4. If the moveable arm doesn't move freely, loosen the screws that control the arm until it moves freely.

GENERAL IMAGER PROBLEMS (...cont.)

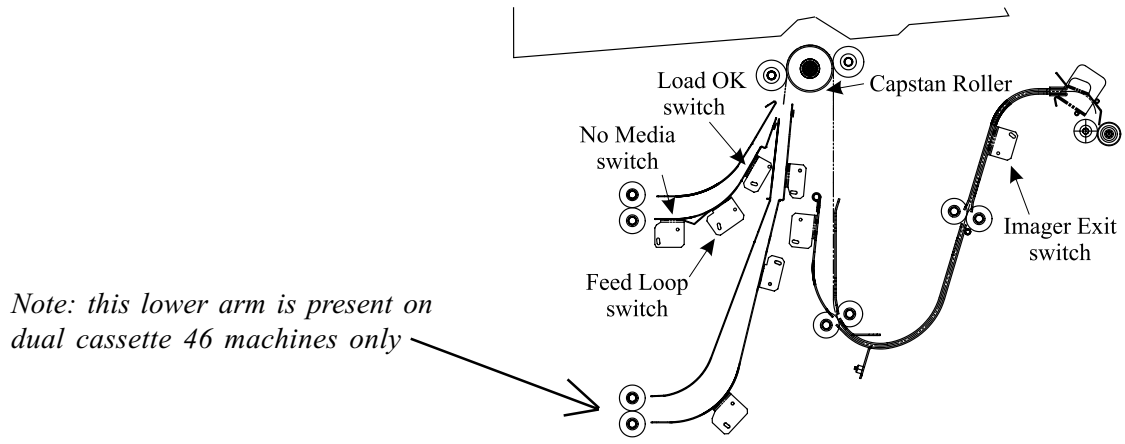
Light leaks.

1. On models with a load door, the door is the most common source of light leaks.
   Open the load door and look down to the bottom of the chassis. Shine a flashlight into the gap between the load door and the bottom skirt. If light is visible, seal the gap between the load door and the bottom skirt with black electrical tape.
2. On models without a load door, check the light seals around the panels and cassettes with a flashlight.
3. Move the platesetter away from bright light sources such as windows. If this is not possible, orient the platesetter with the processor end is away from light sources.
4. If unable to resolve the problem, send sample plates to Printware. (Send 22"-long plate with a gray test pattern).

GENERAL IMAGER PROBLEMS (...cont.)

"No media" or
"Media not loaded far enough" messages.

1. Verify that there is media in the machine.
2. Manually feed the media up to the capstan roller.
3. Check for faulty "Load OK" switch.
   3.1 Remove media.
   3.2 View Sensor Status on Operator Panel.(1 means media present).
   3.3 Manually actuate the Load OK switch.
   - If it the status does not toggle, check the cable by unplugging the Load OK and No Media switches, and plugging the Load OK cable into the No Media switch. Manually actuate the No Media switch. If the Sensor Status does not toggle with the Load OK cable, replace the cable.
   - If the status does toggle with the Load OK cable, the cable is good. Replace the switch.
4. If the "Load OK" switch and cable test good but there are still spurious "No media" or "Media not loaded far enough" messages, bend the Load OK switch lever back toward the left of the machine slightly to increase its sensitivity.


Load OK switch
Capstan Roller
No Media switch
Imager Exit switch
Feed Loop switch
Note: this lower arm is present on dual cassette 46 machines only

Imager module sensor locations

GENERAL IMAGER PROBLEMS (...cont.)

Imaging seems to take too long.

First plates take longer than other plates. General guidelines for first plate total times are as follows:

Resolution	No punch	With Punch
900 DPI:	2 min.	2 min. 30 sec.
1200 DPI:	2 min. 30 sec.	3 min.
1800 DPI:	3 min.	3 min. 30 sec.
2400 DPI:	3 min. 30 sec.	4 min.

(Add 30 sec. to each time for the PlateStream 46)

MEDIA JAMS (Imager Module)

Media will not load past Guide B

1. If the corner of the media is being "dog-eared" before going into cutter, inspect shutter for problems.
2. Update Shutter assembly with teflon tape.

Media gets "dog-eared" before going into cutter.

1. Verify that the shutter plate isn't hitting the capstan roller. To adjust, loosen screws on the outside of the transport on the operator and non-operator side. Adjust the shutter plate to 1/32" to 1/16" (0.8 to 1.6 mm) from the capstan roller.
2. Adjust the moveable shutter arm farther out.
3. If the media is stubbing on the shutter, upgrade with a shutter assembly with Teflon tape on the shutter.

Media buckles in feed section. (Guide A)

1. Verify that edge guides are aligned with spool (see **Operator Guide** for loading procedure)
2. Check adjustment of Feed Loop Switch.
3. Verify that feed rollers are turning.
4. Verify that feed are backing up.
5. Check that marker transport belts aren't slipping
6. Adjust Marker Transport motor speed.

Media jams in Guide B; machine produces 3-5" media strips

1. Check for small pieces of media stuck near the cutter.

NOTE: This problem is often reported after an error message prompts the user to cut a plate. If the cut plate is not removed, Guide B jams can result. Current firmware prompts the user just to "back up" (and not "cut") after certain errors.

Media jams in cutter

1. Adjust the cutter infeed guides.
2. Adjust the cutter blade (see procedures under "**Cutter cycles but doesn't cut**").

IMAGER MODULE SENSOR PROBLEMS

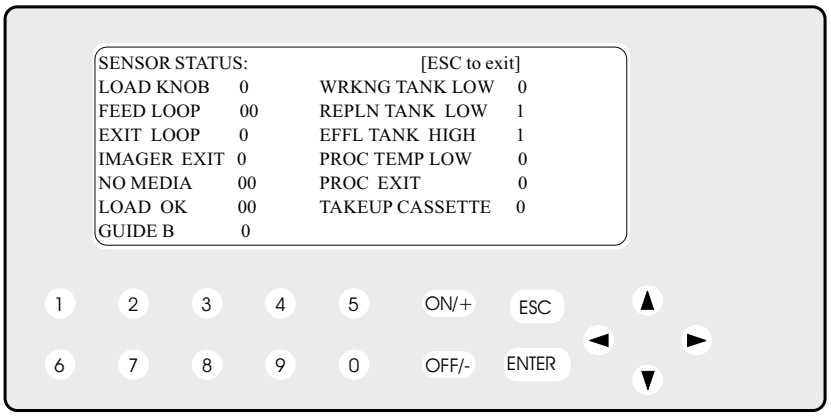
Guide B Sensor blocked

1. Ensure that the cable harness under Guide A is plugged into the switch.
2. Check for any pieces of media that may be stuck in the punch.
3. Remove the rear panel and use a flashlight to see if there are any scraps of media in the punch/cutter path.

Guide B Sensor faulty

1. If there is no media blocking the guide B sensor, the switch may be damaged. From the Operator Panel, go to the Sensor Status menu to test the switch.

2. Open top cover. Lift capstan guide arm, and separate the capstan roller from the pinch roller on the exit side of the imager. Push a piece of paper through these rollers and the center of the punch assembly, over the switch. The Sensor Status should toggle between "1" and "0" as you activated and deactivate the switch. (Current firmware will show a "1" when engaged, and a "0" when disengaged. Older firmware may show the opposite status numbers, but will still toggle between them.) Move the paper over the switch several times while watching the sensor status, to be sure the switch is not sticking.



Sensor status menu

3. If Sensor Status does not toggle between "1" and "0," the switch should be replaced. The replacement part includes detailed replacement instructions.

CUTTER PROBLEMS

Cutter won't cycle.

1. Check and re-seat cutter connector.
2. Check for loose wires on the cutter switch (non-operator side of machine).
3. See if the cutter motor shaft spins by hand (the shaft coming out of the back of the motor).
4. Check for any media stuck in cutter.
5. Check motor winding resistance (normally 10 to 100Ω). If motor is shorted or open, replace the cutter.

Cutter won't stop cycling.

1. Switch misadjusted.
   1.1. If switch is open, the cutter wheel should turn one-third of a revolution.
   1.2. If switch is activated, the wheel should turn 2 to 4 revolutions without stopping.
2. Switch failed.
   2.1. Turn the shaft on the back of motor by hand (you should be able to hear the switch click).
   2.2. Check the switch with an ohmmeter in the open and closed positions.

Cutter cycles but doesn't cut.

1. Remove cutter assembly so cutting blade can be adjusted.
2. Lay cutter on a table with cutter blade facing up.
3. Turn blade by spinning silver shaft on back of motor by hand (clockwise), until blade comes down to lowest point in its rotation.
4. Loosen set screws on arm with a metric Allen wrench.
5. Rotate cutter blade shaft on opposite end with pliers until blade is ¾ of the way through the silver plate on the inside.
6. Tighten set screws on arm and test the cutter before reinstalling cutter in machine.

PUNCH PROBLEMS

Punch does not operate or does not punch all the way through

1. At the Operator Panel, verify that the punch option is turned on.
2. At the regulator on the compressor, check the air pressure (should be approx. 80 psi).
   2.1. If no air pressure:
   - Check that the compressor is plugged in and turned on.

   - If you can hear the compressor, try adjusting the regulator control on the air compressor.

   - Check for leaks around air hosefittings on the punch, the punch solenoid, and the air compres sor.

   - If air pressure is still inadequate, replace the compressor.

   2.2. If air pressure is adequate:
   - Check the cable from the punch solenoid to the interface PCA and re-seat the cable.

   - Check that the air compressor gauge is not stuck. Purge the air by opening the valve on the bottom of the glass regulator tube. Then let it come back up to 80 psi.

   - Turn off the platesetter, plug the punch solenoid wire into the shutter connector on the interface PCA. Turn the Platesetter power back on, and then at the Operator Panel, run the shutter to see if the punch operates. If so, replace the interface PCA.

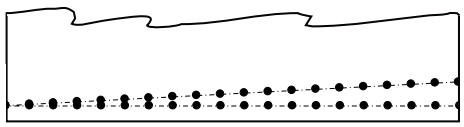
   - If the punch doesn't work when plugged into the shutter connector on the interface PCA, replace the punch solenoid/cable assembly (order both and have them wired together at the factory before shipment).

PUNCH PROBLEMS (...cont.)

Media gets stuck in punch

1. Clear chips from the system:
   - 1.1. If a vacuum cleaner is available, attach it to the punch plate plumbing to extract any build up of chips (this may be operator or non-operator side, depending on the chip collector configuration).
   - 1.2 If a vacuum cleaner is unavailable or step above doesn't clear the chips completely, remove upper infeed Guide A, the lower infeed guide (with brackets left on the guide), and the plate on the back of the punch to clear the remaining chips. Be sure to reinstall the guide in the correct position.
2. For older systems, consider a "vacuum chip-clearing assist upgrade":
   - 2.1. The current design has the chip collection bag on operator side (no upgrade necessary).
   - 2.2. Systems with a vacuum assist upgrade have a fitting on operator side of the punch backplate to blow chips towards the non-operator side vacuum tube.

Double punch with twisted plate



1. This problem is caused by a hooked edge of the punch pattern snagging the plate.
   - 1.1. Adjust punch side to side so that only complete holes are being punched. This may require a press adjustment.
   - 1.2. Use wider or narrower media so that only complete holes are being punched.

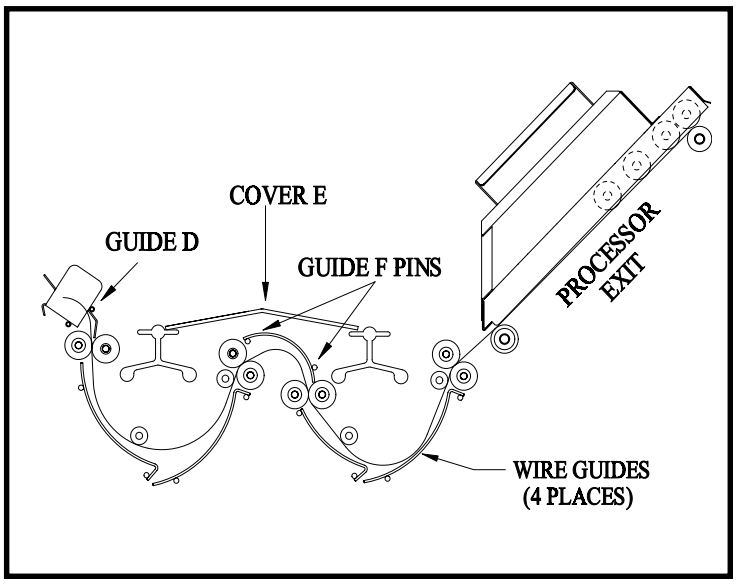
Overheated compressor

1. Check oil level (oil could have leaked out if the compressor had been tipped).
2. Check for air leaks.

PROCESSOR JAMS

Plates jamming at processor entrance.

1. Check that the processor tanks are fully seated.
2. Check that the infeed rollers on the activator rack are turning.
3. Check that Guide D is properly installed.
4. Check that the imager exit switch engages to turn the processor on. Adjust the imager exit switch arm.



Correct processor guide placement

Media is being bent in processor.

1. Verify the wire guides are installed properly. (they are easy to put in backwards)
2. Verify that the media is coming out of imager module straight.
3. Check to see if media comes out of the activator rack straight (under the crossover guide).
4. Adjust activator stop bracket.

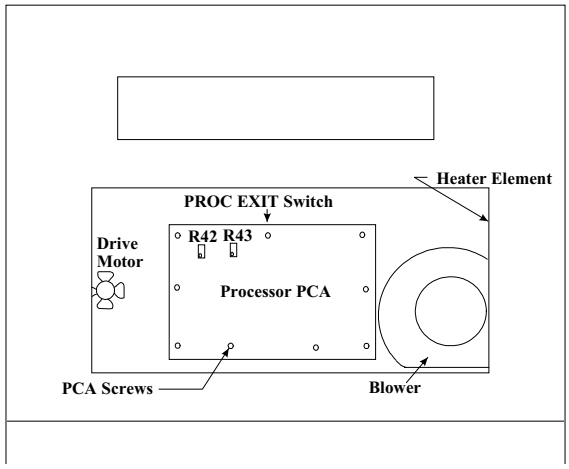
Short plates jamming in the activator rack.	1. Verify that plate length is within platesetter limitations (8.5" or 21 cm minimum for PlateStream MicroPlate; 12" or 30 cm minimum for all other models). 2. Check that the processor wire guides are correctly installed **(see diagram above for correct processor guide placement).** 3. Verify that the rollers in the activator and stabilizer racks are turning.
One plate comes out of processor, and then the messages "media did not exit processor" and "load media" both come up.	1. Check processor exit switch in Sensor Status menu. 2. Calibrate the processor from Operator Panel.

PROCESSING QUALITY PROBLEMS/ARTIFACTS

Media trailing edge wet.

Some residual chemistry on the media trailing edge is normal. If excessive, however, follow these steps:

1. Verify that the stabilizer tank level is not too high, and that the stabilizer tube is pushed all the way down.
2. Check the springs on stabilizer rack squeegee rollers. Replace if stretched out.
3. Clean squeegee rollers with D-Ink and rinse with water.
4. Increase dryer hood temperature (potentiometer R43; instructions on end panel). Recommended temperatures are as follows (setting dryer hood temperature too low can result in wet plates, too high a temperature can result in media curl):
   - Thin paper: 100°F (38°C).
   - Thin poly or thick paper: 110°F (43°C).
   - Thick polyester: 120°F (49°C).



Processor adjustments (right side panel)

PROCESSING QUALITY PROBLEMS/ARTIFACTS
(...cont.)

Brownish-looking plates in silver areas.	1. Check the activator and dryer temperatures. 2. Clean the rollers. 3. Change processor chemistry. 4. Increase the replenishment rate.
Yellow stabilizer stains.	1. Decrease dryer temperature.
Dirty roller marks on plates.	1. Clean the rollers. 2. Change processor chemistry.

PROCESSOR MECHANICAL PROBLEMS

Activator or Stabilizer rollers don't turn.

1. Pull the rack out of the platesetter and check that the idler gears are meshing properly with the other gears. Adjust gears if necessary.
2. Check the end play of rollers, which should be approximately 0.010 to 0.020" (0.25 to 0.5 mm).
3. Check for loose pulley or gear set screws. Adjust worm gear drive to better mesh with other gears.

Processor drive motor jumping.

1. Check that the activator and stabilizer transport racks turn freely by hand.
2. Lower the drive motor to increase belt tension.
3. If motor cannot be moved lower, shim the motor bracket away from the frame using the lock washers.
4. Order shim (part # 806741-001). (Newer processor motor brackets have been redesigned, and do not require the shim.)

Processor noisy.

1. Squealing noise may be the pulley on the end of the worm gear. Apply light oil or Teflon spray.
2. Motors generally make noise. If too loud, replace processor drive motor.

Replenishment pumps noisy.

1. Check to see if the hoses coming from pumps are pinched.
2. Replace pumps.

PROCESSOR SENSOR PROBLEMS

Spurious low replenishment level error message.

This problem is caused by faulty replenishment level probes.

1. Check the probe connectors.
2. Check the cable. Place one ohmmeter probe on replenishment probe and the other on the P2 cable. Check both replenishment probes for continuity. If cable checks out OK, replace the PCA. Otherwise, replace the cable.

Effluent probe not working.

1. Check probe connector.
2. Check cable P3 and PCA (see procedures under **Spurious low replenishment message)**

Processor exit switch does not work.

1. Remove the right-side end panel. Push the exit switch actuator at a 45° angle. An indicator light should turn on after a 6-second time delay from the switch clicking on.
    - If there is not an audible click when the switch is actuated, readjust the switch. If it cannot be readjusted, replace the switch.
    - If the switch actuates but the light doesn't come on, replace the switch and cable.
    - If a new switch and cable does not resolve the problem, replace the PCA.

PROCESSOR ELECTRICAL PROBLEMS

Processor keeps running after media exits.

1. Ensure imager exit switch works by manually feeding media over the switch and watching to see that it toggles between 1 and 0 in the Sensor Status menu.
2. If the switch works, lower the upper media guide (Guide C) to force media to feed closer to the switch, or reform or adjust switch upward.

Dryer not heating.

1. Check and re-seat connectors J4 and J12 on the Processor PCA.
2. Check fuses F3 and F4 on the processor PCA.
3. Check the Processor PCA

   3.1. Check that dryer heater LEDs A and B are on when the heater should be on (*i.e.*, processor on and Heater Up To Temperature light not on). If LEDs do not go on, replace the processor PCA.

   3.2. If Heater Up To Temperature light is on, set temperature by adjusting potentiometer R43. Clockwise turns heat up on most PCAs (instructions are on the inside of the processor panel).

   3.3. If Heater Up To Temperature light is always on regardless of the R43 setting, replace the thermistor.

4. Check heater element.
   4.1. Remove dryer heater assembly from processor.
   4.2. Check heater element resistance with an ohmmeter. Normal values are:
   Pin 1 to Pin 2: 45Ω
   Pin 1 to Pin 3: 45Ω
   Pin 2 to Pin 3: 88Ω
   Pin 1 to Pin 4: Open

PROCESSOR ELECTRICAL PROBLEMS (...cont.)

Replenishment pumps not turning.

1. Check the effluent tank. If it is full, the pumps will not come on.
2. If the replenishment tanks are low the pump will not come on.
3. Check the "Check Pump prime" light on processor PCA. If the light does not come on when the pumps should be on, replace the processor PCA.
4. Measure the voltage across the pumps at TS2-2 (brown) and TS2-3 (blue).
   - If 220V is present, replace pump assembly.
   - If 220V isn't present, the replace the processor PCA.

Pumps turning but fluid output is inadequate.

1. Verify that there is chemistry in the replenishment tanks.
2. Check for leaking hoses.
3. Check for air in the hoses. If there is, unplug the hose from tank and hold the end over the tank as it pumps until the air is cleared.
4. Check for pinched hoses.
5. Adjust pump rate (see Installation Guide chapter 1 for adjustment procedures).

Activator bath is too hot.

1. Turn heat down on processor PCA by adjusting potentiometer R42 (the temperature specification is 86º±2ºF or 30º±1ºC).
2. Replace temperature probe.

PROCESSOR ELECTRICAL PROBLEMS (...cont.)

Processor drive motor does not work.

1. Make sure the processor interlock switch is being activated. If not, adjust the switch bracket.
2. Remove both racks and turn on the processor. If the motor comes on with the racks removed, replace one rack at a time. If adding a rack causes the motor to stop, check the meshing of the gears and the roller end play of that rack.
3. Check the worm drive.
4. Remove the right-side end panel, and measure the voltage across motor.
    - If voltage reads 220V, with motor on, but the motor is not spinning, replace motor.
    - If there is no voltage across the motor, check fuse F5 on the PCA. If the fuse is good, replace the PCA.
5. Turn the white motor fan blade by hand. If it doesn't turn easily, disconnect the drive belt and try again. If it still does not turn easily, replace the motor assembly.

MEDIA PROBLEMS

Media has excessive curl.

1. Check for excessive curl in media. Lay a 12" length of material on a flat surface and hold down one end. If curl the is more than 2", replace media, it does not meet the manufacturer's specifications.

2. Decrease dryer hood temperature (potentiometer R43; instructions on end panel).

PRESS-RELATED PROBLEMS (refer to troubleshooting guides for supplies for most press problems)

Short run length

1. Check press roller settings. Recommended settings for most presses are:
   - Form to Plate stripe: 1/8" (3 mm)
   - Plate to Blanket stripe: 3/16" (5 mm)
2. Verify that exposure is set correctly by checking D_{max}. Laser power too high can cause short run lengths.
3. Reduce laser power.

CABLE 803319-002

POWER SUPPLY DRAWER 807046-001 J4			
RED	+5V	1
BLACK	GND	2
RED	+5V	3
BLACK	GND	4
YELLOW	+12V	5
BLACK	GND	6
BLUE	-12V	7
BLACK	GND	8
ORANGE	+24V	9
BLACK	GND	10

INTERLOCK ASSY 806307-002 J7		
INTERLOCK PWR		1
	-12V	2
	NC	3

LASER ASSY 803280-001 IR 807226-TAB RED J1			
RED	LASER	1
BLACK	GND	2
BLUE	-12V	3
BLACK	GND	4
BROWN	PHTODIODE	5
BLACK	GND	6

GALVO ASSY 807049-001 J14			
GREEN	G. DRV0 +	1
WHITE	G. SENSE +	2
GREEN	G. DRV1 +	3
RED	G. DRV0 -	4
BLACK	G. SENSE -	5
RED	G. DRV1 -	6

SENSOR ASSY 807151-001 J11			
RED	SOS C.	1
GREEN	SOS SIG	2
WHITE	SOS REF	3
RED	SOT C	4
WHITE	SOT SIG	5
GRAY	SOT REF	6

CABLE 803312-003

POWER SUPPLY DRAWER J5			
8	RED	1
9	BLACK	2
4	YELLOW	3
12	BLACK	4
13	BLUE	5
		6

OPERATOR PANEL ASSY
807148-001

SCMEMATIC PAGE 7

J1

LIQUID CRYSTAL DISPLAY 522540 J4		
XD3		1
XD2		2
XD1		3
XD0		4
YD		5
WE		6
LP		7
XSCL		8
+5V		9
GND		10
VO		11
VLCD		12

ASSY - LCD 802533

KEYPAD 523180-001 J6		
X7 *		1
X6 *		2
X5 *		3
X4 *		4
X3 *		5
X2 *		6
X1 *		7
X0 *		8
Y0 *		9
Y1 *		10
Y2 *		11

J2

1	BROWN	1
2	RED	2
3	ORANGE	3
4	YELLOW	4
5	GREEN	5
6	BLUE	6
7	VIOLET	7
8	GRAY	8
9	WHITE	9
10	BLACK	10
11	BROWN	11
12	RED	12
13	ORANGE	13
14	YELLOW	14
15	GREEN	15
16	BLUE	16
17	VIOLET	17
18	GRAY	18
19	WHITE	19
20	BLACK	20

CABLE 803311-003

CABLE 803312-003

POWER SUPPLY DRAWER J5			
1	RED	1
10	BLACK	2
2	RED	3
3	BLACK	4
11	YELLOW	5
5	BLACK	6
6	BLUE	7
14	BLACK	8
7	ORANGE	9
		10

TS2 TS1

L1 BROWN
GND GREEN
L2 BLUE

POWER SUPPLY 220V

J4 J8 J5

PROCESSOR
523150-001

SCHEMATIC PAGE 6

EFFLUENT TANK LEVEL PS 806815-002 806792-001 J3			
WHITE	BLACK	1	2
BLACK	NU	3	4

REPLENISHMENT TANK SENSORS 806709-001 806790-001 J2			
STAB	ACT	WHITE	1	2
STAB	ACT	BLACK	3	4

WORKING TANK SENSORS 806800-001 806793-001 J6			
BLACK	WHITE	1	2
NU	NU	3	4

EXIT SWITCH 600333-001 806789-001 J7			
WHITE	BLACK	1	2
WHITE	NU	3	4

DRIER TEMP SENSOR 600330-001 806788-001 J12			
WHITE	BLACK	1	2
WHITE	NU	3	4

ACT TEMP PROBE 806786-001 J10			
RED	BLACK	1	2
NU	NU	3	4

J11 [NU]

J9 [NU]

J1

1	BROWN	WORKING TANKS LOW *	BROWN	1
2	RED	GND	RED	2
3	ORANGE	REPLN TANKS LOW *	ORANGE	3
4	YELLOW	GND	YELLOW	4
5	GREEN	EFF TANK HIGH *	GREEN	5
6	BLUE	GND	BLUE	6
7	VIOLET	PROC. TEMP *	VIOLET	7
8	GRAY	GND	GRAY	8
9	WHITE	FILM EXIT *	WHITE	9
10	BLACK	GND	BLACK	10
11	BROWN	SPARE *	BROWN	11
12	RED	GND	RED	12
13	ORANGE	+5V PULL-UP	ORANGE	13
14	YELLOW	SOI *	YELLOW	14
15	GREEN	+5V PULL-UP	GREEN	15
16	BLUE	DRIVE INH *	BLUE	16
17	VIOLET	+5V PULL-UP	VIOLET	17
18	GRAY	RESET *	GRAY	18
19	WHITE	+5V PULL-UP	WHITE	19
20	BLACK	PUMP PRIME *	BLACK	20
21	BROWN	+5V PULL-UP	BROWN	21
22	RED	SPARE *	RED	22
23	ORANGE	NU	ORANGE	23
24	YELLOW	NU	YELLOW	24
25	GREEN	NU	GREEN	25
26	BLUE	NC	BLUE	26

806794-001 CABLE

DB25 CONNECTOR MOUNTS TO SIDE OF IMAGER

CABLE 806306-002

COOLING FAN

RED	1	+24V	ORANGE	1
BLACK	2	FAN DRV *	WHITE	2

CABLE 807226-001

PUNCH 807301-001			
1		WHITE	1
2		ORANGE	2
3	NU	WHITE	3
		ORANGE	4

SHUTTER SOLENOID 800699-001				
WHITE	+24V	ORANGE	1
WHITE	SHUTTER DRV *	WHITE	2
		ORANGE	3
WHITE	+24v	WHITE	4

SHUTTER SOLENOID 800699-001			
WHITE	SHUTTER DRV *	WHITE	1
		ORANGE	2
WHITE	+24v	WHITE	3
	SHUTTER DRV *	ORANGE	4

CABLE 806376-001

1	BROWN	WORKING TANKS LOW *	BROWN	1
2	RED	GND	RED	2
3	ORANGE	REPLN TANKS LOW *	ORANGE	3
4	YELLOW	GND	YELLOW	4
5	GREEN	EFF TANK HIGH *	GREEN	5
6	BLUE	GND	BLUE	6
7	VIOLET	PROC. TEMP *	VIOLET	7
8	GRAY	GND	GRAY	8
9	WHITE	FILM EXIT *	WHITE	9
10	BLACK	GND	BLACK	10
11	BROWN	SPARE *	BROWN	11
12	RED	GND	RED	12
13	ORANGE	+5V PULL-UP	ORANGE	13
14	YELLOW	SOI *	YELLOW	14
15	GREEN	+5V PULL-UP	GREEN	15
16	BLUE	DRIVE INH *	BLUE	16
17	VIOLET	+5V PULL-UP	VIOLET	17
18	GRAY	RESET *	GRAY	18
19	WHITE	+5V PULL-UP	WHITE	19
20	BLACK	PUMP PRIME *	BLACK	20
21	BROWN	+5V PULL-UP	BROWN	21
22	RED	SPARE *	RED	22
23	ORANGE	NU	ORANGE	23
24	YELLOW	NU	YELLOW	24
25	GREEN	NU	GREEN	25
26	BLUE	NC	BLUE	26

CONTROLLER PCA
522980-001 IR
522980-002 RED

SCHEMATIC PAGE 3

J1 [NU] J6 J7 J1 J14 J6 [NU] J4 [NU] J2 J3 J5 J12 J16 J14

J9

J3 [NU] [NU] J16 [NU] J2

CABLE 803314-001

1	BROWN	NC	1
2	RED	PRN GND	20
3	ORANGE	NC	2
4	YELLOW	PRN GND	21
5	GREEN	NC	3
6	BLUE	PRN GND	22
7	VIOLET	NC	4
8	GRAY	PRN GND	23
9	WHITE	NC	5
10	BLACK	PRN GND	24
11	BROWN	PIX ENBL	6
12	RED	PIX ENBL *	25
13	ORANGE	PIX CLK	7
14	YELLOW	PIX CLK *	26
15	GREEN	PRN D0	8
16	BLUE	PRN D0 *	27
17	VIOLET	PRN D1	9
18	GRAY	PRN D1 *	28
19	WHITE	PRN D2	10
20	BLACK	PRN D2 *	29
21	BROWN	PRN D3	11
22	RED	PRN D3 *	30
23	ORANGE	PRN D4	12
24	YELLOW	PRN D4 *	31
25	GREEN	PRN D5	13
26	BLUE	PRN D5 *	32
27	VIOLET	PRN D6	14
28	GRAY	PRN D6 *	33
29	WHITE	PRN D7	15
30	BLACK	PRN D7 *	34
31	BROWN	PRN R / W *	16
32	RED	PRN R / W	35
33	ORANGE	PRN STRB	17
34	YELLOW	PRN STRB *	36
35	GREEN	PRN ACK	18
36	BLUE	PRN ACK *	37
37	VIOLET	PRN GND	19
38	NC		
39	NC		
40	NC		

J8 TO RIP

INTERFACE PCA
523060-001

SCHEMATIC PAGE 4

[NU] J13

CABLE 803118-001

1	BROWN	GND	BROWN	1
2	RED	FD STEP	RED	2
3	ORANGE	FD STEP *	ORANGE	3
4	YELLOW	GND	YELLOW	4
5	GREEN	FD RESET	GREEN	5
6	BLUE	FD RESET *	BLUE	6
7	VIOLET	GND	VIOLET	7
8	GRAY	TR STEP	GRAY	8
9	WHITE	TR STEP *	WHITE	9
10	BLACK	GND	BLACK	10
11	BROWN	TR RESET	BROWN	11
12	RED	TR RESET *	RED	12
13	ORANGE	GND	ORANGE	13
14	YELLOW	EX STEP	YELLOW	14
15	GREEN	EX STEP *	GREEN	15
16	BLUE	GND	BLUE	16
17	VIOLET	EX RESET	VIOLET	17
18	GRAY	EX RESET *	GRAY	18
19	WHITE	GND	WHITE	19
20	BLACK	CUT STEP	BLACK	20
21	BROWN	CUT STEP *	BROWN	21
22	RED	GND	RED	22
23	ORANGE	CUT RESET	ORANGE	23
24	YELLOW	CUT RESET *	YELLOW	24
25	GREEN	GND	GREEN	25
26	BLUE	PLG * / OP	BLUE	26
27	VIOLET	PLG / OP *	VIOLET	27
28	GRAY	GND	GRAY	28
29	WHITE	STEP SYNC	WHITE	29
30	BLACK	STEP SYNC *	BLACK	30
31	BROWN	GND	BROWN	31
32	RED	SPARE 3 *	RED	32
33	ORANGE	SPARE 3	ORANGE	33
34	YELLOW	GND	YELLOW	34
35	GREEN	FD / TR DIR	GREEN	35
36	BLUE	FD / TR DIR *	BLUE	36
37	VIOLET	GND	VIOLET	37
38	GRAY	SPARE 1 *	GRAY	38
39	WHITE	SPARE 1	WHITE	39
40	BLACK	GND	BLACK	40
41	BROWN	SPARE 0 *	BROWN	41
42	RED	SPARE 0	RED	42
43	ORANGE	GND	ORANGE	43
44	YELLOW	EX DIR	YELLOW	44
45	GREEN	EX DIR *	GREEN	45
46	BLUE	GND	BLUE	46
47	VIOLET	SPARE 2 *	VIOLET	47
48	GRAY	SPARE 2	GRAY	48
49	WHITE	GND	WHITE	49
50	BLACK	GND	BLACK	50

J11

CABLE 804140-003

1	BROWN	NO MEDIA +5V	NO MEDIA SENSOR (NO) 807091-001
2	RED	NO MEDIA SIG	
3	ORANGE	NO MEDIA GND	
4	YELLOW	LOAD OK +5V	LOAD OK SENSOR (NO) 807091-001
5	GREEN	LOAD OK SIG	
6	BLUE	LOAD OK GND	
7	VIOLET	LOAD KNOB +5V	LOAD KNOB SENSOR (NO) 807091-001
8	GRAY	LOAD KNOB SIG	
9	WHITE	LOAD KNOB GND	
10	BLACK	EXIT CASSETTE +5V	EXIT CASSETTE SENSOR (NO) 807091-001
11	BROWN	EXIT CASSETTE SIG	USED ONLY WITH FILM OPTION
12	RED	EXIT CASSETTE GND	
13	ORANGE	NU	
14	YELLOW	NU	
15	GREEN	NU	
16	BLUE	NU	
17	VIOLET	EX LOOP +5V	EXIT LOOP SENSOR (NO) 807091-001
18	GRAY	EX LOOP SIG	
19	WHITE	EX LOOP GND	
20	BLACK	FEED LOOP +5V	FEED LOOP SENSOR (NO) 807091-001
21	BROWN	FEED LOOP SIG	
22	RED	FEED LOOP GND	
23	ORANGE	NU	
24	YELLOW	NU	
25	GREEN	NU	
26	BLUE	NU	
27	VIOLET	NU	
28	GRAY	NU	
29	WHITE	NU	
30	BLACK	NU	
31	BROWN	IMAGER EXIT 1 +5V	IMAGER EXIT SENSOR (NO) 807091-001
32	RED	IMAGER EXIT 1 SIG	
33	ORANGE	IMAGER EXIT 1 GND	
34	YELLOW	NU	
35	GREEN	NU	
36	BLUE	NU	
37	VIOLET	GUIDE B +5V	GUIDE B SENSOR (NO) 807091-001
38	GRAY	GUIDE B SIG	
39	WHITE	GUIDE B GND	
40	BLACK	NU	

J15 J14

AC POWER COVER

SCHEMATIC PAGE 2

VENT FAN 900894-001

806504-001 (ASSY - CABLE - FAN - FILTER)

FAN MOUNTS TO FRAME NOT TO COVER

CABLE 806461-001

CABLE 806461-003

CABLE 803311-003

AC IN
240 VAC
50 / 60 HZ
806420-TAB

AC +
AC -

EMI FILTER
COROM
30VK6
25A / 40 F
250V
900813-001

CABLE 806503-001

SWITCH CIRCUIT BREAKER
600267-002

CABLE 806462-001

GROUNDS TO MOUNTING SCREW

GROUND STUD IN BOTTOM OF CHASSIE

CABLE 803321-001

POWER SUPPLY DRAWER J1			
2	+24V	ORANGE	
3	+24V	ORANGE	
5	GND	BLACK	
1	+5V	RED	
6	GND	BLACK	
7	GND	BLACK	

J5

ENGINE STEPPER PCA
523190-004

SCHEMATIC PAGE 5

WHEEL CUTTER J1 [NU]

PAPER FEED J3

MARKER TRANS. J4

DECURL / EXIT J2

SHEAR CUTTER J8

J7

J6 [NU]

FEED STEPPER 803666-001

CAPSTAN STEPPER 804628-001

EXIT STEPPER 803666-001

CUTTER ASSY

CUTTER SWITCH

CUTTER MOTOR

806127-001

POWER SUPPLY BOX

ORANGE
BLACK

FAN MOUNTS TO FRONT OF POWER SUPPLY

DC POWER SUPPLY 901142-001

LINE
NEUTRAL
GROUND

+5V
+5V
GND
GND
+24V
-12V
+12V
+ GND

ALL FUSES 250V 5A 600322-001

+5V FUSE
+24V FUSE
-12V FUSE
+12V FUSE

J6 522780

POWER DISTRIBUTION PCA

J1 — CABLE 803321-001 — ENG STEPPER

(1)	RED	ENG_STP +5V
(2, 3)	ORANGE	ENG_STP +24V
(5, 6, 7,)	BLACK	ENG_STP GND
(4)	ORANGE	+24V
(8)	BLACK	GND

J4 — CABLE 803319-002 — CONTROLLER

(1, 7)	RED	CONT +5V
(3)	YELLOW	CONT +12V
(4)	BLUE	CONT -12V
(6)	ORANGE	CONT +24V
(2, 5, 8, 9, 10)	BLACK	CONT GND
(12)	ORANGE	VENT FAN +24
(11)	BLACK	VENT FAN RTN

J5 — CABLE 803312-003 — INTERFACE OP PANEL

(1, 2)	RED	INTRF +5V
(11)	YELLOW	INTRF +12V
(6)	BLUE	INTRF -12V
(7)	ORANGE	INTRF +24V
(3, 5, 10, 14)	BLACK	INTRF GND
(8)	RED	OP +5V
(4)	YELLOW	OP +12V
(13)	BLUE	OP -12V
(9, 12)	BLACK	OP GND

DC POWER

WIRE COLOR	VOLTAGE
RED	+5V
YELLOW	+12V
BLUE	+12V
ORANGE	+24V
WHITE	SIGNAL
BLACK	GROUND
GREEN	CHASISE GND

PLUG MOUNTS TO BACK OF POWER SUPPLY

J2 J1 J3 J4 J5 J6

PIN ASSIGNMENTS FROM BACK OF P. S. DRAWER

PLUG FOR POWER SUPPLY

REV	ECO	DESCRIPTION	DRAWN BY / DATE	APPVL / DATE
B	06534	**WIRING CHANGE PAGE 6 J8**	W.M.S.	9-1-99
A	06490	INITAL RELEASE	W.M.S.	7-9-99

DO NOT SCALE DRAWING

	DRAWN BY	WMS	7-2-99
	ENG.		
	ENG. APPVL.		
	MFG		
	Q.A.		

TOLERANCE UNLESS OTHERWISE SPECIFIED
ANGLES ..... .5 DEG
1 PLACE DECIMALS ..... ---
2 PLACE DECIMALS ..... .02
3 PLACE DECIMALS ..... .010

MATERIAL

FINISH

Title

WIRING DIAGRAM - PlateStream 46

PRINTWARE INC.
ST. PAUL, MN

COMM. CODE	Size: B	700606-001	INSP. VERSION	REV B
FIRST USED ON			SCALE: NONE	

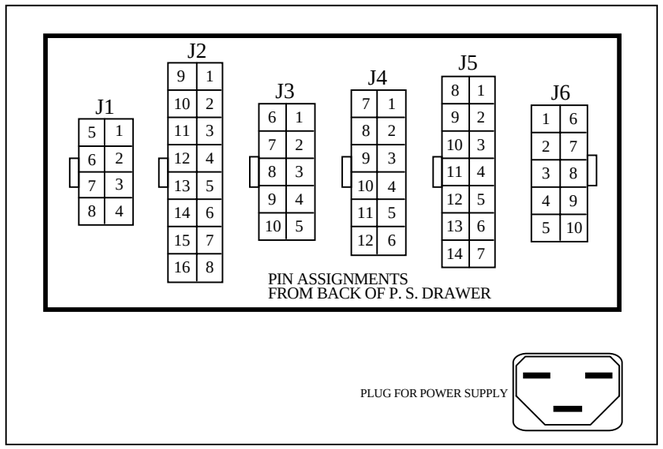
This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indirectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc.

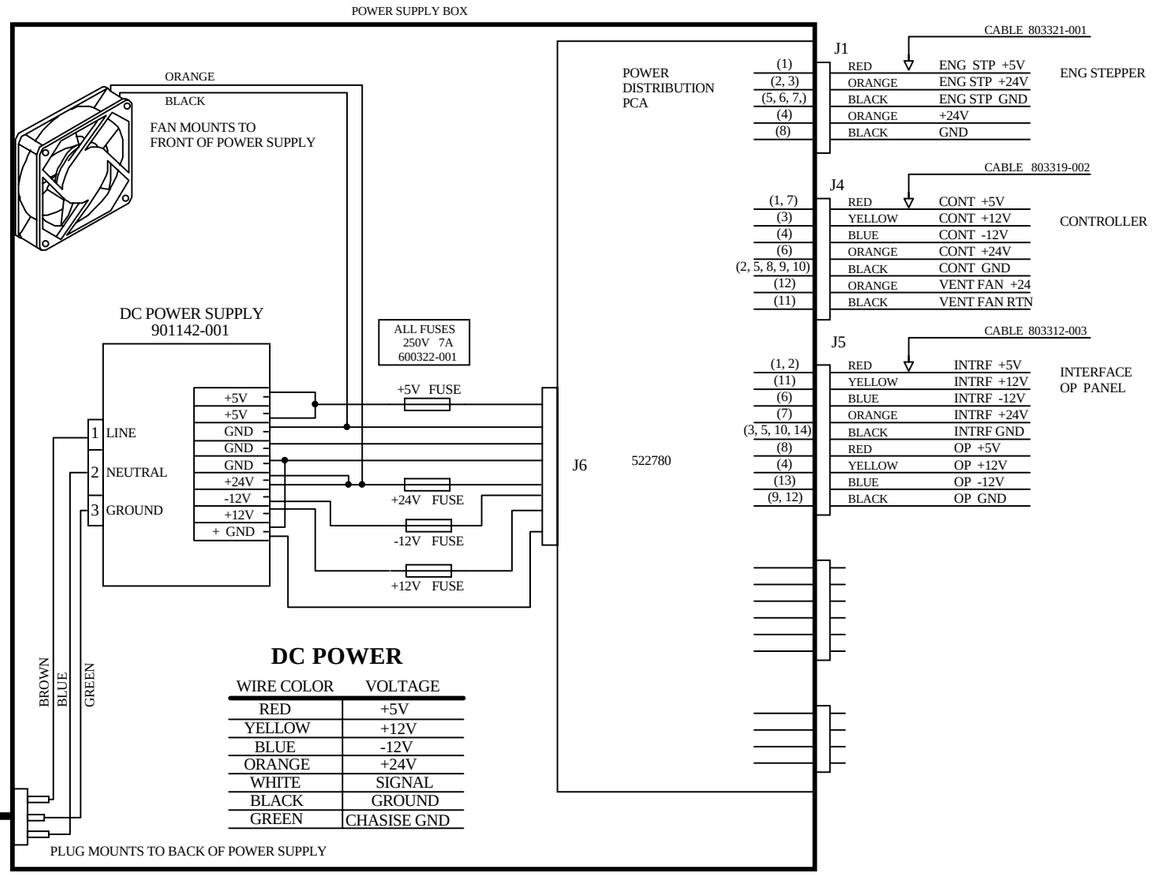
Sheet 1 of 7

SCHEMATIC PAGE 1

POWER SUPPLY INTEGRATED ASSY
807046-TAB

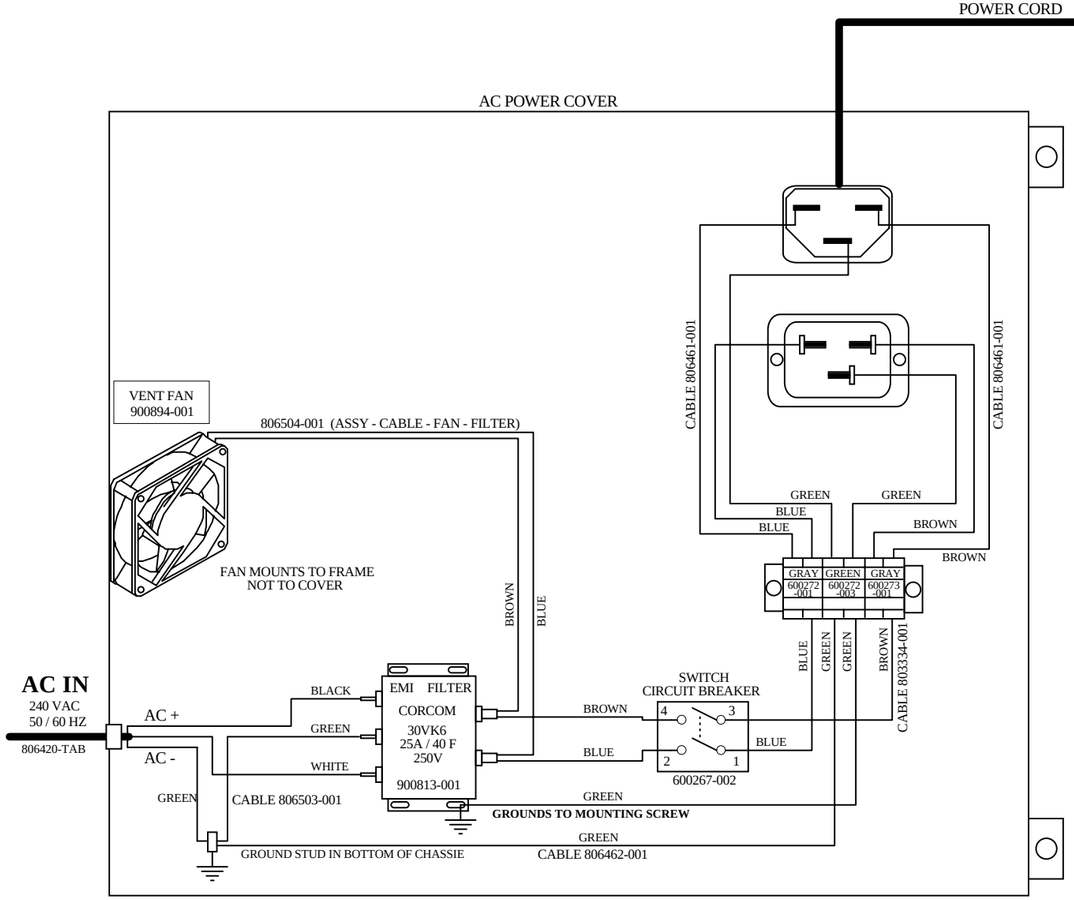
TAB BLOCK	
PART NO.	DESCRIPTION
807046-001	NORTH AMERICAN
807046-501	INTERNATIONAL
806420-003	FOR NORTH AMERICAN USE (BLACK, WHITE, GREEN WIRE)
806420-004	FOR INTERNATIONAL USE (BROWN, BLUE, GREEN/YELLOW WIRE)

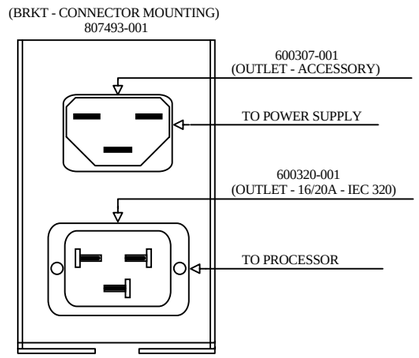




DC POWER

WIRE COLOR	VOLTAGE
RED	+5V
YELLOW	+12V
BLUE	-12V
ORANGE	+24V
WHITE	SIGNAL
BLACK	GROUND
GREEN	CHASISE GND





SCHEMATIC PAGE 2

DO NOT SCALE DRAWING

DRAWN BY	WMS	7-17-99
ENG.		
ENG. APPVL.		
MFG		
Q.A.		

TOLERANCE UNLESS OTHERWISE SPECIFIED
ANGLES..... .5 DEG
1 PLACE DECIMALS..... ---
2 PLACE DECIMALS..... .02
3 PLACE DECIMALS..... .010

PRINTWARE INC.
ST. PAUL, MN

MATERIAL

FINISH

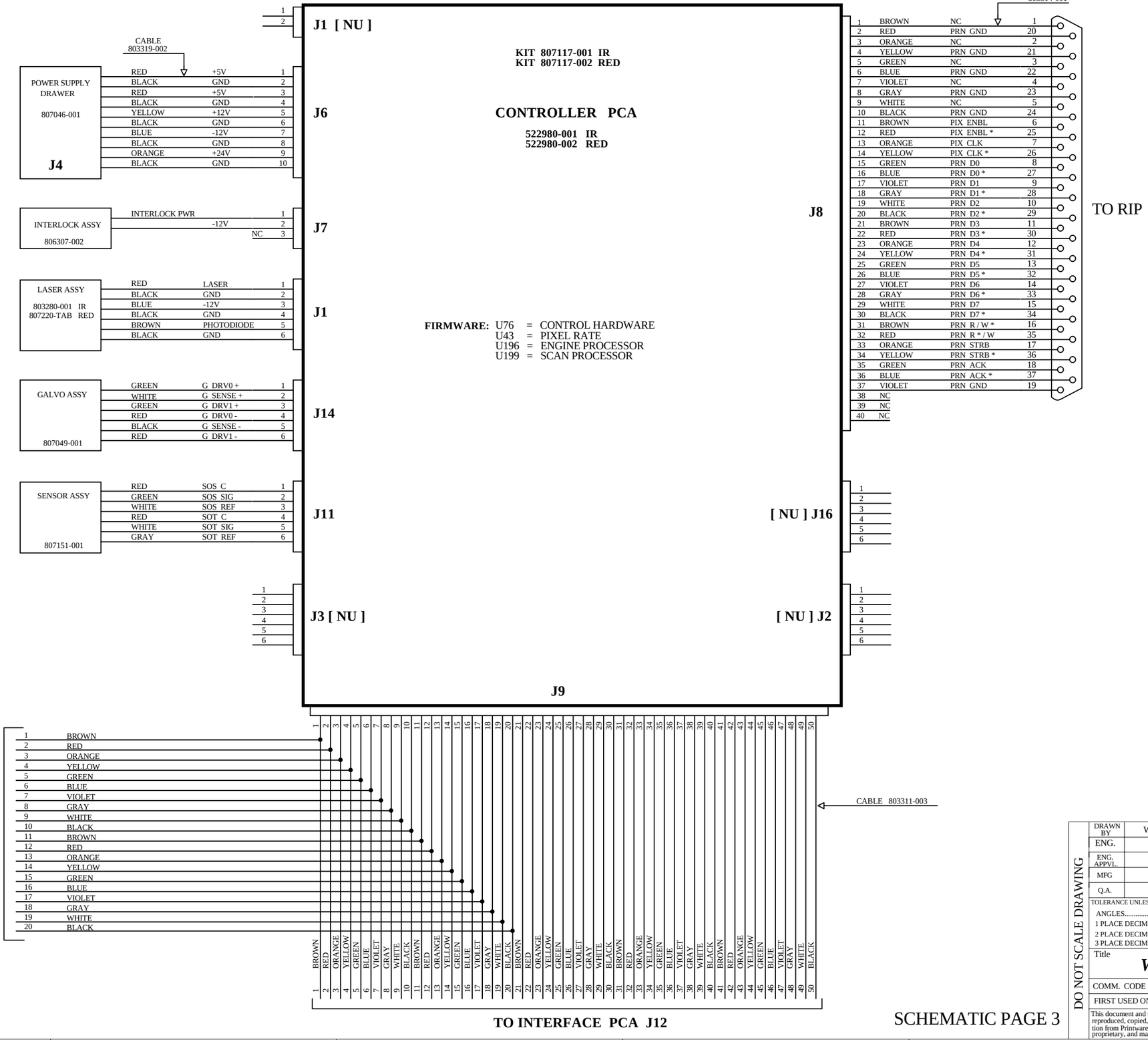
Title
WIRING DIAGRAM - PlateStream 46

COMM. CODE	Size:		INSP. VERSION	REV
FIRST USED ON	B	700606-001		B

This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indrectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc

SCALE: NONE

Sheet 2 of 7



1	RED	+5V	1
2	BLACK	GND	2
3	RED	+5V	3
4	BLACK	GND	4
5	YELLOW	+12V	5
6	BLACK	GND	6
7	BLUE	-12V	7
8	BLACK	GND	8
9	ORANGE	+24V	9
10	BLACK	GND	10

1	INTERLOCK PWR		1
2		-12V	2
3		NC	3

1	RED	LASER	1
2	BLACK	GND	2
3	BLUE	-12V	3
4	BLACK	GND	4
5	BROWN	PHOTODIODE	5
6	BLACK	GND	6

1	GREEN	G_DRV0 +	1
2	WHITE	G_SENSE +	2
3	GREEN	G_DRV1 +	3
4	RED	G_DRV0 -	4
5	BLACK	G_SENSE -	5
6	RED	G_DRV1 -	6

1	RED	SOS_C	1
2	GREEN	SOS_SIG	2
3	WHITE	SOS_REF	3
4	RED	SOT_C	4
5	WHITE	SOT_SIG	5
6	GRAY	SOT_REF	6

1	BROWN	NC	1
2	RED	PRN_GND	20
3	ORANGE	NC	2
4	YELLOW	PRN_GND	21
5	GREEN	NC	3
6	BLUE	PRN_GND	22
7	VIOLET	NC	4
8	GRAY	PRN_GND	23
9	WHITE	NC	5
10	BLACK	PRN_GND	24
11	BROWN	PIX_ENBL	6
12	RED	PIX_ENBL *	25
13	ORANGE	PIX_CLK	7
14	YELLOW	PIX_CLK *	26
15	GREEN	PRN_D0	8
16	BLUE	PRN_D0 *	27
17	VIOLET	PRN_D1	9
18	GRAY	PRN_D1 *	28
19	WHITE	PRN_D2	10
20	BLACK	PRN_D2 *	29
21	BROWN	PRN_D3	11
22	RED	PRN_D3 *	30
23	ORANGE	PRN_D4	12
24	YELLOW	PRN_D4 *	31
25	GREEN	PRN_D5	13
26	BLUE	PRN_D5 *	32
27	VIOLET	PRN_D6	14
28	GRAY	PRN_D6 *	33
29	WHITE	PRN_D7	15
30	BLACK	PRN_D7 *	34
31	BROWN	PRN_R / W *	16
32	RED	PRN_R * / W	35
33	ORANGE	PRN_STRB	17
34	YELLOW	PRN_STRB *	36
35	GREEN	PRN_ACK	18
36	BLUE	PRN_ACK *	37
37	VIOLET	PRN_GND	19
38	NC		
39	NC		
40	NC		

| | | |

TO CONTROLLER PCA J9

CABLE 803311-003

1	BROWN	1	
2	RED	2	
3	ORANGE	3	
4	YELLOW	4	
5	GREEN	5	
6	BLUE	6	
7	VIOLET	7	
8	GRAY	8	
9	WHITE	9	
10	BLACK	10	
11	BROWN	11	
12	RED	12	
13	ORANGE	13	
14	YELLOW	14	
15	GREEN	15	
16	BLUE	16	
17	VIOLET	17	
18	GRAY	18	
19	WHITE	19	
20	BLACK	20	
21	BROWN	21	
22	RED	22	
23	ORANGE	23	
24	YELLOW	24	
25	GREEN	25	
26	BLUE	26	
27	VIOLET	27	
28	GRAY	28	
29	WHITE	29	
30	BLACK	30	
31	BROWN	31	
32	RED	32	
33	ORANGE	33	
34	YELLOW	34	
35	GREEN	35	
36	BLUE	36	
37	VIOLET	37	
38	GRAY	38	
39	WHITE	39	
40	BLACK	40	
41	BROWN	41	
42	RED	42	
43	ORANGE	43	
44	YELLOW	44	
45	GREEN	45	
46	BLUE	46	
47	VIOLET	47	
48	GRAY	48	
49	WHITE	49	
50	BLACK	50	

CABLE 803312-003

POWER SUPPLY DRAWER — J5

1	RED	1
10	BLACK	2
2	RED	3
3	BLACK	4
11	YELLOW	5
5	BLACK	6
6	BLUE	7
14	BLACK	8
7	ORANGE	9
		10

J12

INTERFACE PCA

523060-001

J16

J1 [NU]

J6 [NU]

J4 [NU]

J2

J3

J5

J14

J11

J15 SENSORS

[NU] J13

CABLE 803118-001

1	BROWN	GND	1
2	RED	FD STEP	2
3	ORANGE	FD STEP *	3
4	YELLOW	GND	4
5	GREEN	FD RESET	5
6	BLUE	FD RESET *	6
7	VIOLET	GND	7
8	GRAY	TR STEP	8
9	WHITE	TR STEP *	9
10	BLACK	GND	10
11	BROWN	TR RESET	11
12	RED	TR RESET *	12
13	ORANGE	GND	13
14	YELLOW	EX STEP	14
15	GREEN	EX STEP *	15
16	BLUE	GND	16
17	VIOLET	EX RESET	17
18	GRAY	EX RESET *	18
19	WHITE	GND	19
20	BLACK	CUT STEP	20
21	BROWN	CUT STEP *	21
22	RED	GND	22
23	ORANGE	CUT RESET	23
24	YELLOW	CUT RESET *	24
25	GREEN	GND	25
26	BLUE	PLG * / OP	26
27	VIOLET	PLG / OP *	27
28	GRAY	GND	28
29	WHITE	STEP SYNC	29
30	BLACK	STEP SYNC *	30
31	BROWN	GND	31
32	RED	SPARE 3 *	32
33	ORANGE	SPARE 3	33
34	YELLOW	GND	34
35	GREEN	FD / TR DIR	35
36	BLUE	FD / TR DIR *	36
37	VIOLET	GND	37
38	GRAY	SPARE 1 *	38
39	WHITE	SPARE 1	39
40	BLACK	GND	40
41	BROWN	SPARE 0 *	41
42	RED	SPARE 0	42
43	ORANGE	GND	43
44	YELLOW	EX DIR	44
45	GREEN	EX DIR *	45
46	BLUE	GND	46
47	VIOLET	SPARE 2 *	47
48	GRAY	SPARE 2	48
49	WHITE	GND	49
50	BLACK	GND	50

TO ENGINE STEPPER PCA J7

CABLE 804140-003

1	BROWN	NO MEDIA +5V	NO MEDIA SENSOR (NO) 807091-001
2	RED	NO MEDIA SIG	
3	ORANGE	NO MEDIA GND	
4	YELLOW	LOAD OK +5V	LOAD OK SENSOR (NO) 807091-001
5	GREEN	LOAD OK SIG	
6	BLUE	LOAD OK GND	
7	VIOLET	LOAD KNOB +5V	LOAD KNOB SENSOR (NO) 807091-001
8	GRAY	LOAD KNOB SIG	
9	WHITE	LOAD KNOB GND	
10	BLACK	EXIT CASSETTE +5V	EXIT CASSETTE SENSOR (NO) 807091-001 — USED ONLY WITH FILM OPTION
11	BROWN	EXIT CASSETTE SIG	
12	RED	EXIT CASSETTE GND	
13	ORANGE	NU	
14	YELLOW	NU	
15	GREEN	NU	
16	BLUE	NU	
17	VIOLET	EX LOOP +5V	EXIT LOOP SENSOR (NO) 807091-001
18	GRAY	EX LOOP SIG	
19	WHITE	EX LOOP GND	
20	BLACK	FEED LOOP +5V	FEED LOOP SENSOR (NO) 807091-001
21	BROWN	FEED LOOP SIG	
22	RED	FEED LOOP GND	
23	ORANGE	NU	
24	YELLOW	NU	
25	GREEN	NU	
26	BLUE	NU	
27	VIOLET	NU	
28	GRAY	NU	
29	WHITE	NU	
30	BLACK	NU	
31	BROWN	IMAGER EXIT 1 +5V	IMAGE EXIT SENSOR (NO) 807091-001
32	RED	IMAGER EXIT 1 SIG	
33	ORANGE	IMAGER EXIT 1 GND	
34	YELLOW	NU	
35	GREEN	NU	
36	BLUE	NU	
37	VIOLET	GUIDE B +5V	GUIDE B SENSOR (NO) 807091-001
38	GRAY	GUIDE B SIG	
39	WHITE	GUIDE B GND	
40	BLACK	NU	

CABLE 806306-002

COOLING FAN

RED	1	+24V	ORANGE	1
BLACK	2	FAN DRV *	WHITE	2

PUNCH 807301-001

1		WHITE	1
2		ORANGE	2
3	NU	WHITE	3
		ORANGE	4

CABLE 807226-001

806099-001 SHUTTER SOLENOID

WHITE		+24V	ORANGE	1
WHITE		SHUTTER DRV *	WHITE	2
WHITE		+24v	ORANGE	3
WHITE		SHUTTER DRV *	WHITE	4

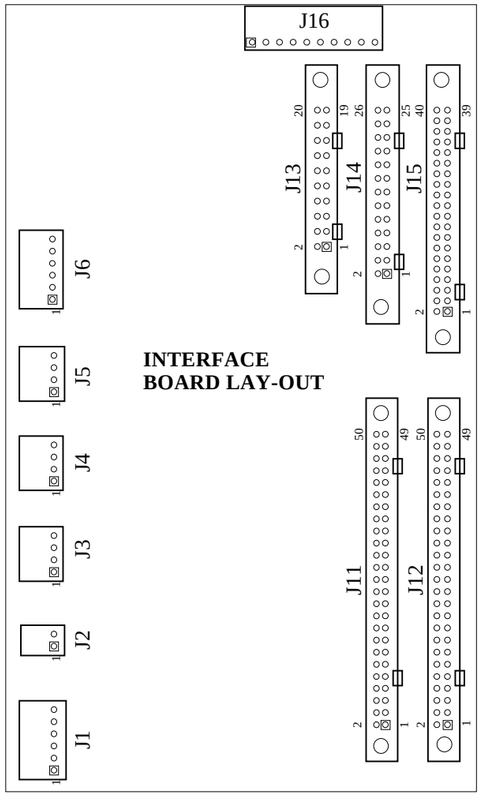
806099-001 SHUTTER SOLENOID

CABLE 806376-001

TO PROCESSOR J1

1	WORKING TANKS LOW *	BROWN	1
14	GND	RED	2
2	REPLN TANKS LOW *	ORANGE	3
15	GND	YELLOW	4
3	EFF TANK HIGH *	GREEN	5
16	GND	BLUE	6
4	PROC TEMP *	VIOLET	7
17	GND	GRAY	8
5	FILM EXIT *	WHITE	9
18	GND	BLACK	10
6	SPARE *	BROWN	11
19	GND	RED	12
7	+5V PULL-UP	ORANGE	13
20	SOJ *	YELLOW	14
8	+5V PULL-UP	GREEN	15
21	DRIVE INH *	BLUE	16
9	+5V PULL-UP	VIOLET	17
22	RESET *	GRAY	18
10	+5V PULL-UP	WHITE	19
23	PUMP PRIME *	BLACK	20
11	+5V PULL-UP	BROWN	21
24	SPARE *	RED	22
12	NU	ORANGE	23
25	NU	YELLOW	24
13	NU	GREEN	25
NC		BLUE	26

INTERFACE BOARD LAY-OUT



DRAWN BY	WMS	7-17-99	
ENG.			
ENG. APPVL.			
MFG			
Q.A.			

TOLERANCE UNLESS OTHERWISE SPECIFIED

ANGLES	.5 DEG
1 PLACE DECIMALS	---
2 PLACE DECIMALS	.02
3 PLACE DECIMALS	.010

DO NOT SCALE DRAWING

PRINTWARE INC.
ST. PAUL, MN

MATERIAL

FINISH

Title

WIRING DIAGRAM - PlateStream 46

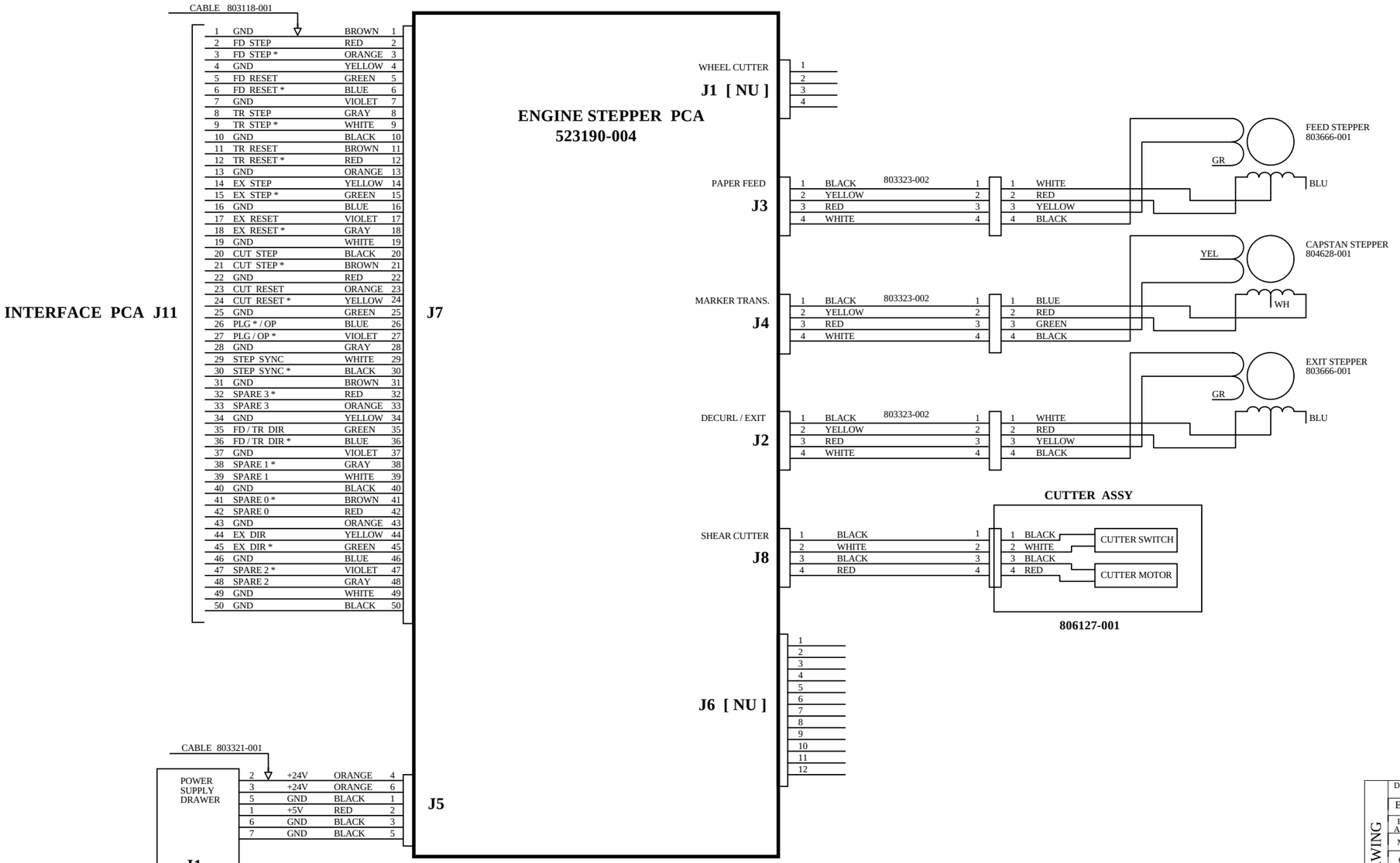
COMM. CODE	Size: B	700606-001	INSP. VERSION	REV B
FIRST USED ON				

This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indirectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc.

SCALE: NONE

Sheet 4 of 7

SCHEMATIC PAGE 4



SCHEMATIC PAGE 5

DO NOT SCALE DRAWING

DRAWN BY	WMS	6-30-99
ENG.		
ENG. APPVL.		
MFG		
Q.A.		

PRINTWARE INC.
ST. PAUL, MN

MATERIAL

FINISH

TOLERANCE UNLESS OTHERWISE SPECIFIED
ANGLES..... .5 DEG
1 PLACE DECIMALS..... ---
2 PLACE DECIMALS..... .02
3 PLACE DECIMALS..... .010

Title
WIRING DIAGRAM - PlateStream 46

COMM. CODE	Size: B	700606-001	INSP. VERSION	REV B
FIRST USED ON				

This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indirectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc.

SCALE: NONE

Sheet 5 of 7

DB25 PIN CONNECTOR
MOUNTS ON SIDE OF IMAGER

806789-001

EXIT SWITCH
600333-001

WORKING TANK SENSORS
806800-001

806793-001

RIBBON CABLE TO INTERFACE
BOARD PS46 806794-001
PS 807204-001

EFFLUENT TANK LEVEL
PS46 806815-001
PS 806815-002

806792-001

806788-001

DRIER TEMP SENSOR
600330-001

MOUNTING SCREW

ACT TEMP PROBE
806786-001

806790-001

REPLENISHMENT TANK SENSORS
806709-001

(PINS 1 & 2 ARE WHITE) (PINS 3 & 4 ARE BLACK)
(PINS 2 & 4 ACT) (PINS 1 & 3 STAB)

PROCESSOR
DRIVE MOTOR
806703-001

RED BLACK WHITE BLACK WHITE WHITE BLACK WHITE WHITE BLACK WHITE WHITE BLACK

J9 J10 J11 J12 J7 J6 J2 J3 J1

1 26

PIN 1 IS BROWN PIN 26 IS GREEN

TP4 ACT TEMP CAL TP3 DRYER TEMP CAL

ACT BLANKET HEATER
600335-001

F1
5A 250V

TRANSFORMER

WIRING DIAGRAM
PS46 808155-001
PSMP 807346-001
PS 807179-001

523150-001

EMI FILTER

J8

2A 250V F2
5A 250V F3
5A 250V F4
2A 250V F5

HEATER FAN
806705-001

22 12 32 31 21 11

BLUE BROWN

HOOD INTERLOCK
600292-001

J4 J5

CHASSIS GROUND

BLACK BLACK BLACK BLACK BLACK

DRYER HEATER
806712-001

RED RED GREEN BLACK BLACK BLACK BLUE BROWN YELLOW/GREEN

8 7 6 5 4 3 2 1

TS2

GREEN GREEN GREEN

BLACK

7 6 5 4 3 2 1

TS1

BLUE GREEN GREEN BLACK BLACK BLACK BROWN BLACK BLACK BROWN GREEN BLACK

L1 GND L2

BROWN GREEN BLUE

806501-001

POWER SUPPLY
220V

REPLENISHMENT
PUMPS 806843-001

SCHEMATIC PAGE 6

DO NOT SCALE DRAWING

DRAWN BY	WMS	3-20-99
ENG.		
ENG. APPVL.		
MFG		
Q.A.		

TOLERANCE UNLESS OTHERWISE SPECIFIED
ANGLES..... .5 DEG
1 PLACE DECIMALS..... ---
2 PLACE DECIMALS..... .02
3 PLACE DECIMALS..... .010

PRINTWARE INC.
ST. PAUL, MN

MATERIAL

FINISH

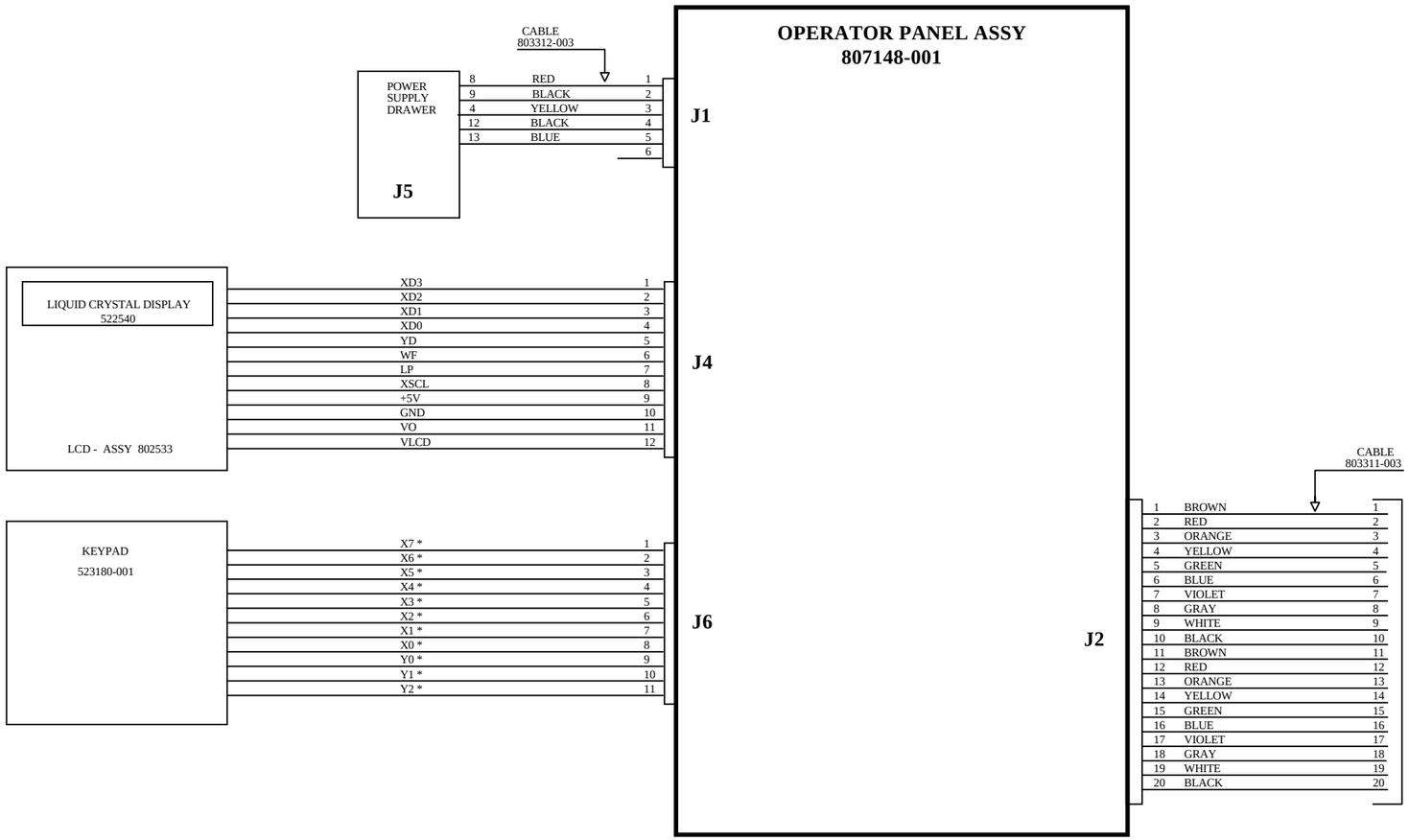
Title
WIRING DIAGRAM - PlateStream 46

COMM. CODE	Size:		INSP. VERSION	REV
FIRST USED ON	B	700606-001		B

This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indrectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc

SCALE: NONE

Sheet 6 of 7



SCHEMATIC PAGE 7

DO NOT SCALE DRAWING

DRAWN BY	WMS	7-17-99
ENG.		
ENG. APPVL.		
MFG		
Q.A.		

TOLERANCE UNLESS OTHERWISE SPECIFIED

ANGLES.....	.5 DEG
1 PLACE DECIMALS.....	---
2 PLACE DECIMALS.....	.02
3 PLACE DECIMALS.....	.010

PRINTWARE INC.
ST. PAUL, MN

MATERIAL

FINISH

Title
WIRING DIAGRAM - PlateStream 46

COMM. CODE	Size:		INSP. VERSION	REV
FIRST USED ON	B	700606-001		B

This document and the information it contains is the property of Printware Inc., and may not be reproduced, copied, disclosed to others, or disposed of directly or indirectly without authorization from Printware Inc. Both the document and its contents are to be treated as confidential & proprietary, and may not be used in any manner not consistent with the rights of Printware Inc.

SCALE: NONE

Sheet 7 of 7

PlateStream 46

Platesetter

Illustrated Parts List

Printware
LEADERS IN COMPUTER TO PLATE

700582 Rev A

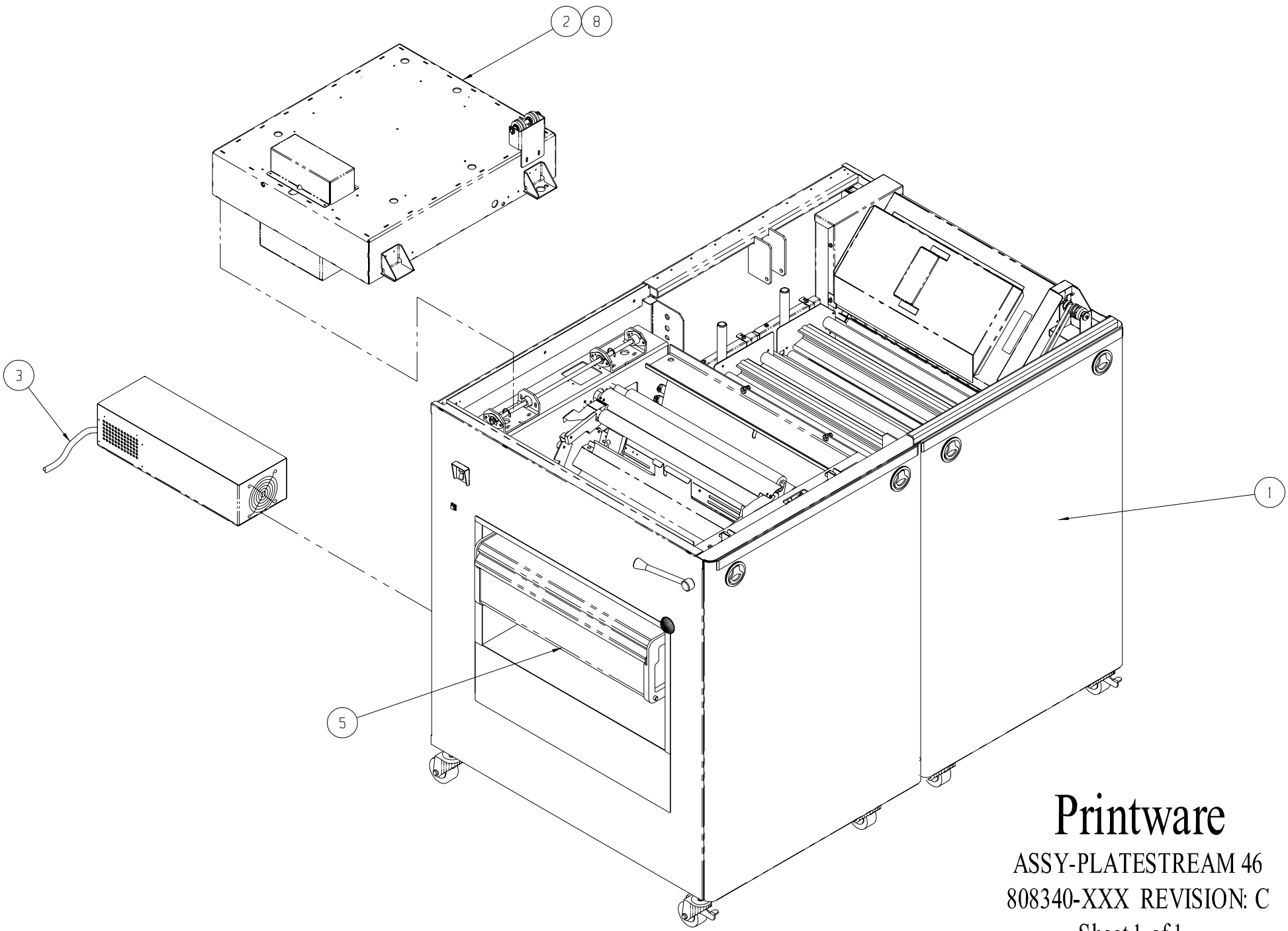
Assembly Number: 808340-XXX

ASSY-PLATESTREAM 46

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	808341-001	ASSY-IMAGER PLATESTREAM 46
002	1	808145-001	ASSY-MARKER IR
002	1	808145-002	ASSY-MARKER RED
003	1	806420-001	ASSY-CABLE POWER DOMESTIC
003	1	806420-002	ASSY-CABLE POWER INTERNATIONAL

PRINTWARE Confidential



Printware

ASSY-PLATESTREAM 46

808340-XXX REVISION: C

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 808341-001

ASSY-IMAGER PLATESTREAM 46

Revision: B

Find Number	Quantity Used	Component Number	Component Description
001	1	808143-001	ASSY-CHASSIS PLATESTREAM 46
002	1	808344-001	ASSY-ROLLER TRANSPORT PLATESTREAM 46
004	1	803287-007	ASSY-POWER SUPPLY 110/220V
005	1	804140-003	ASSY-CABLE INTERFACE/SENSORS
006	1	808155-001	ASSY-PROCESSOR
009	1	806005-001	ASSY-OP PANEL
010	1	806386-001	FOAM-LIGHTSEAL CASSETTE
013	2	900270-009	GAS-CYLINDER 30 LBS.
014	2	900270-008	GAS-CYLINDER 75 LBS.
015	2	900270-007	GAS-CYLINDER 50 LBS.
016	8	900257	STUD- 10MM BALL- 5/16-18 THREAD
017	4	900222-003	NUT-HEX UNC 5/16-18
018	10	900223-007	WASHER-LOCK HELICAL SPRING 5/16 REG
020	1	808202-001	GUIDE-PROCESSOR EXIT
022	1	523050-004	PCA-STEPPER-SHEAR CUTTER
022	1	523190-004	PCA-STEPPER-SHEAR CUTTER
023	1	523060-001	PCA-INTERFACE 3240
024	4	900261-004	RECEPTACLE- 1/4 TURN
025	8	900958-001	NUT-RECEPTACLE RETAINING
026	1	806843-001	ASSY-PUMP
027	1	803769-001	BRKT-PUMP MOUNTING
029	2	806709-001	ASSY-PROBE
030	9	900047-000	WASHER-EXTERNAL LOCK #8
031	7	900445-006	SCREW-B.H. TORX 8-32 UNC X .375
033	14	900233-003	NUT-LOCK K #8-32
034	1	807222-001	TRAY
035	2	806866-001	STOP-TRAY ADJUSTABLE
035	1	807223-001	BLOCK-TRAY ADJUSTABLE XPO
036	2	804569-003	TUBING-SLIT 1.00
037	4	900223-006	WASHER-LOCK HELICAL SPRING 3/8 REG.
038	2	900725-001	FEET-ROUND #8 ROUND HEAD
040	8	900287-007	SCREW-PAN PPH 6-32 X .75
041	8	900215-006	WASHER, NYLON, #6 X .062 THK
042	8	900341-003	BUSHING-SPACER, NYLON 6-32 X .375
043	1	806269-001	PANEL-FLAT
044	1	806494-001	GUARD-I/O CABLE
045	1	806333-001	COVER-POWER SWITCH
046	4	900222-007	NUT, HEX, UNC 3/8-16
047	4	900651-008	WASHER-FENDER 2.000 X .438 X .156
048	4	900173-001	BOLT-HEX HD UNC THREAD 3/8-16X2-3/4
049	4	900872-004	ISOLATOR-WR4-060
050	4	900872-008	ISOLATOR-WB4-060

PRINTWARE Confidential

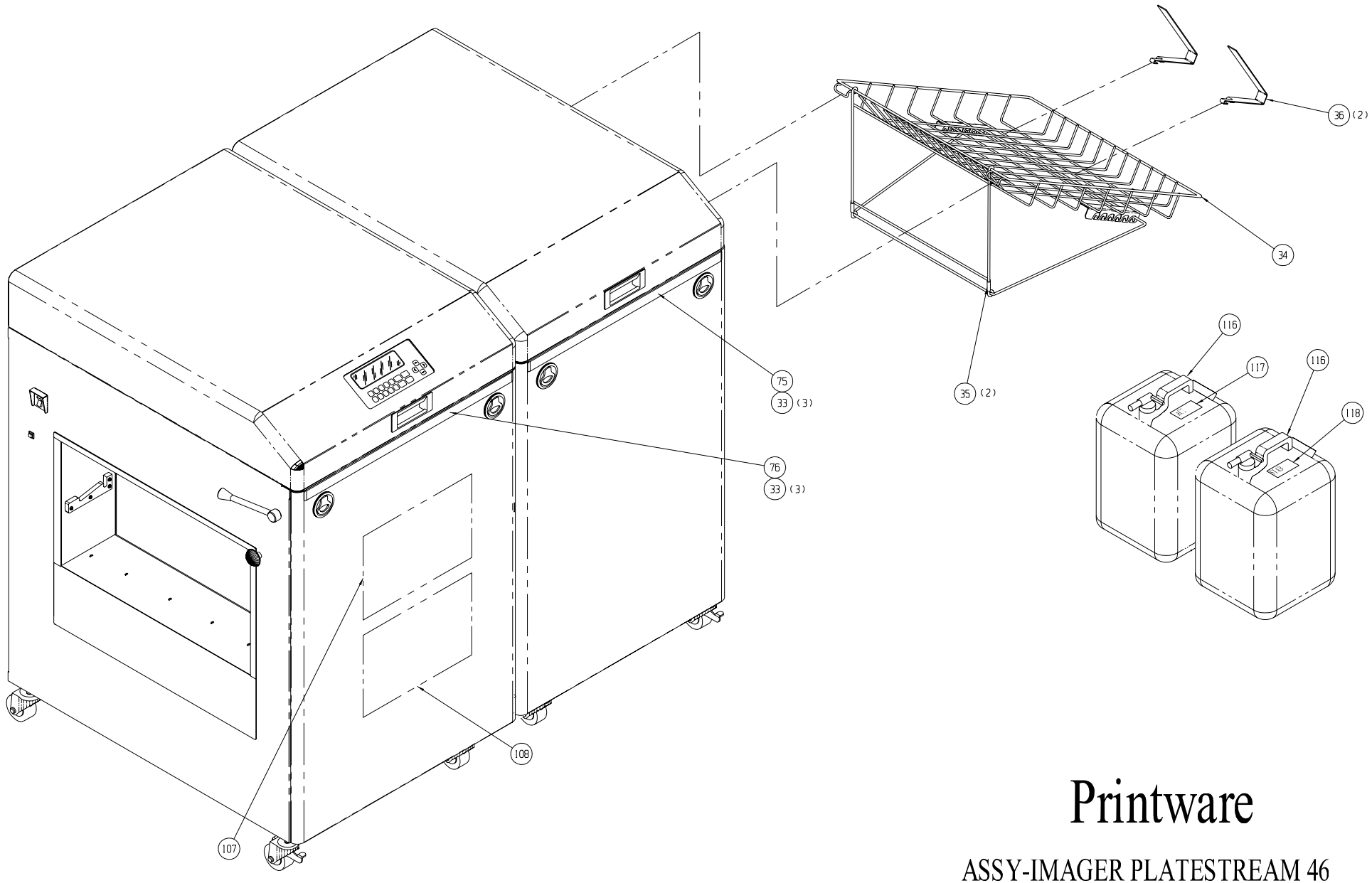
Assembly Number: 808341-001

ASSY-IMAGER PLATESTREAM 46

Revision: B

051	4	900288-002	SCREW-PPH 10-32 X 2
052	4	900652-007	SPACER-ROUND #10 X 5/8
053	8	900651-003	WASHER-FENDER 1.375 X .192 X .048
054	4	900233-001	NUT-LOCK K, #10/32
055	4	900726-001	ISOLATOR- WR3-030 RING
056	4	900726-005	ISOLATOR- WB3-030 BUSHING
058	1	901124-100	CONTAINER-SHIPPING IMAGER
059	1	901124-200	CONTAINER-SHIPPING PROCESSOR
063	2	901041-002	TANK-PLASTIC 5 GAL.
075	1	808185-001	STRIP-TRIM
076	1	808185-002	STRIP-TRIM
080	1	901143-001	CONTAINER-ACCESSORY
082	1	901062-001	TUBING-MAILING
083	1	806474-001	GUARD-CAPSTAN DRIVE
084	1	806473-001	GUARD-CAPSTAN PULLEY
085	6	900224-002	SCREW, TAPTITE, PPH, 8-32 X 3/8
087	1	806501-001	ASSY-CABLE INTERLOCK PROC
088	1	600188-003	STRAIN RELIEF-CABLE
091	1	600292-001	SWITCH-DOOR
093	1	804521-001	ASSY-CABLE-INTERLOCK JUMPER
094	1	600306-002	CABLE-ACCESSORY-MALE IEC
095	1	806719-007	ASSY-TUBE ACT 18"
096	1	807312-001	ASSY-TUBE STAB 11.00
097	1	806719-008	ASSY-TUBE ACT 30"
098	1	807312-003	ASSY-TUBE STAB CUT 30.00
114	1	806882-001	ASSY-SHROUD FAB
115	4	806825-001	PAD-RACK
116	2	901041-002	TANK-PLASTIC 5 GAL.

PRINTWARE Confidential



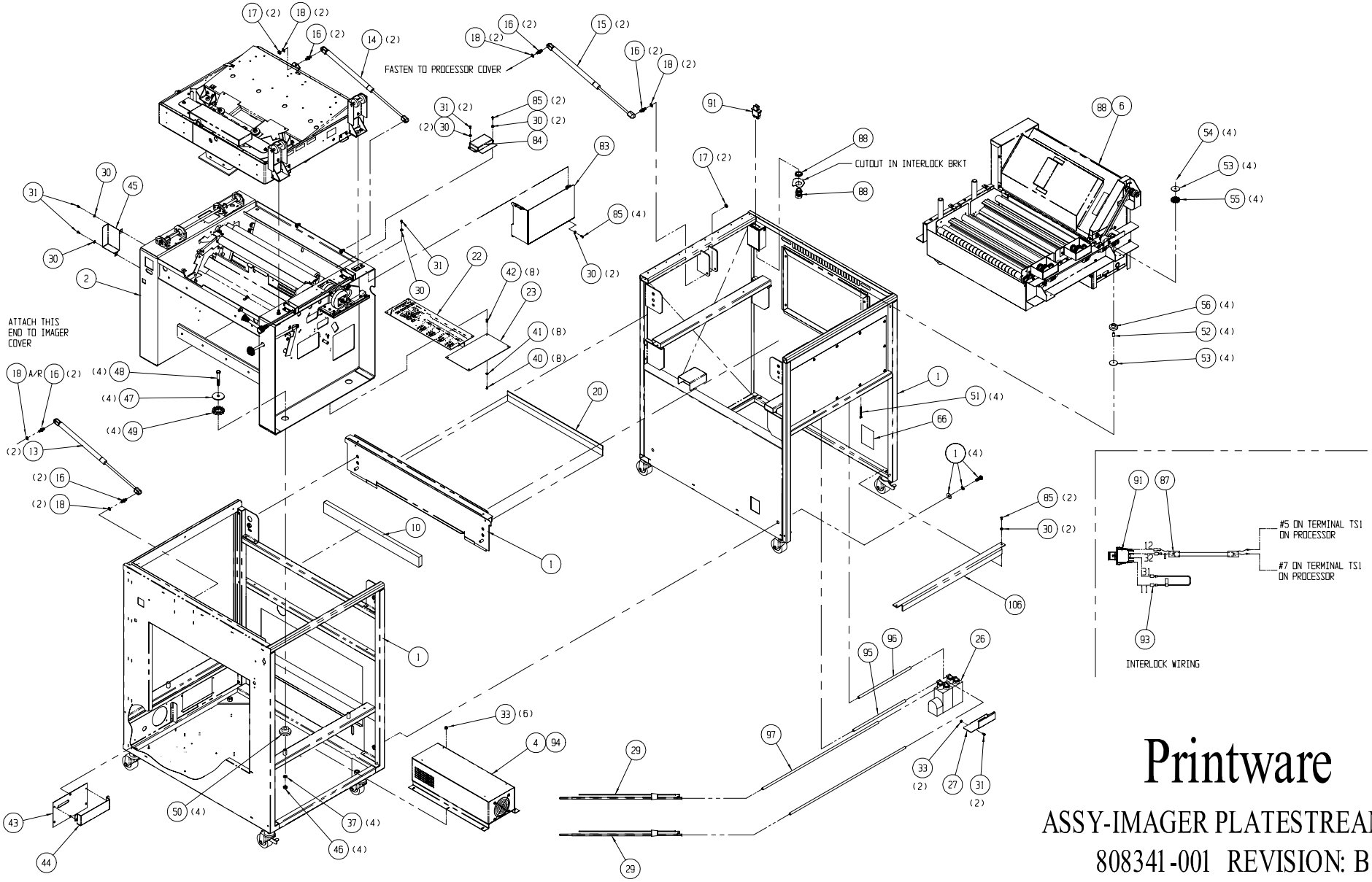
Printware

ASSY-IMAGER PLATESTREAM 46

808341-001 REVISION: B

Sheet 1 of 3

PRINTWARE Confidential


FASTEN TO PROCESSOR COVER
CUTOUT IN INTERLOCK BRKT
ATTACH THIS END TO IMAGER COVER
#5 ON TERMINAL TS1 ON PROCESSOR
#7 ON TERMINAL TS1 ON PROCESSOR
INTERLOCK WIRING

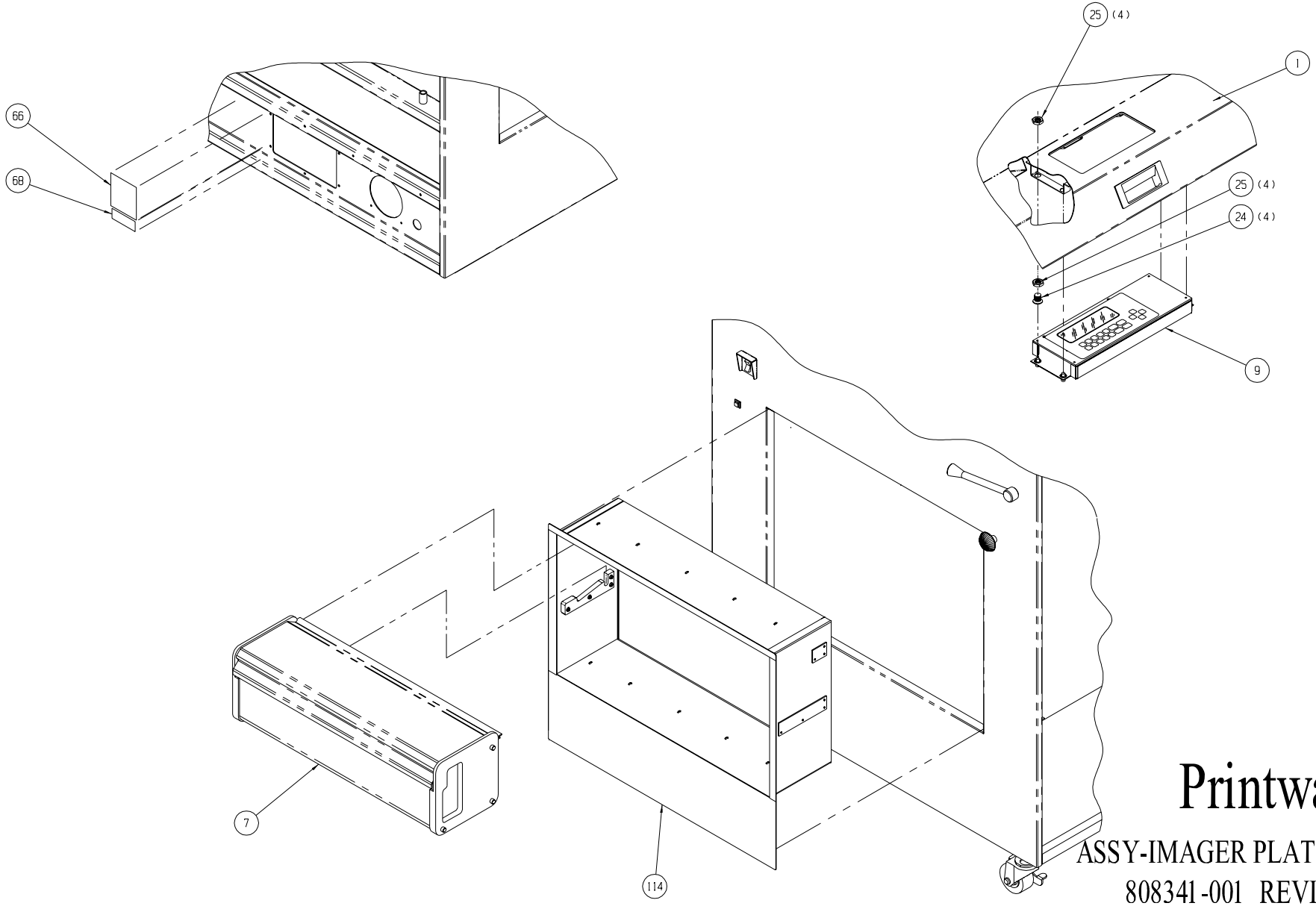
Printware

ASSY-IMAGER PLATESTREAM 46

808341-001 REVISION: B

Sheet 2 of 3

PRINTWARE Confidential



Printware

ASSY-IMAGER PLATESTREAM 46

808341-001 REVISION: B

Sheet 3 of 3

PRINTWARE Confidential

Assembly Number: 808143-001

ASSY-CHASSIS PLATESTREAM 46

Revision: B

Find Number	Quantity Used	Component Number	Component Description
001	1	803314-001	ASSY-CABLE CON/RIP
003	1	804217-001	ASSY-CABLE-BLK/PROC
004	1	807226-002	ASSY-CABLE INTERFACE TO SOLENOID
005	1	803311-003	ASSY-CABLE CONTROLLER TO OPERATOR PANEL
006	1	803312-002	ASSY-CABLE-POWER OPERATOR PANEL
007	1	806306-001	ASSY-CABLE MARKER FAN
008	1	803318-001	ASSY-CABLE SCSI/ENG
010	1	803334-001	ASSY-CABLE BRK/BLK
011	1	804149-001	ASSY-CABLE FIL/BRK
012	1	803319-002	ASSY-CABLE-POWER4 CON6 FAN A48 B43
013	1	803321-001	ASSY-CABLE - ENG5 POWER1
015	5	901029-002	STANDOFF-WIRE TWIST LOCK
019	1	806376-001	ASSY-CABLE PROCESSOR I/O
021	1	806475-001	GUARD-CIRCUIT BREAKER
022	2	821521-001	ASSY-CABLE GROUND STRAP 6.50
023	4	900224-001	SCREW, TAPTITE, PPH, 6-32 X 3/8
032	1	900813-001	FILTER-RFI K-SERIES 30VK6
033	1	600267-002	CIRCUIT BREAKER-DOUBLE POLE 20A
034	1	600320-001	OUTLET-16/20A-IEC 320
035	2	900237-002	SCREW-SOCKET FLAT HEAD UNC 4-40 X 3/8
036	1	600307-001	OUTLET-ACCESSORY-PUSH IN
038	4	803323-002	ASSY-CABLE ENG/STEPPER
039	1	806366-001	ASSY-CABLE CUTTER/STEPPER
089	2	900821-002	POCKET PULL 4.84 X 1.84 .040-.070
093	2	600272-000	TERMINAL BLOCK - GREY 4-CONDUCTOR
094	1	600272-003	TERMINAL BLOCK-GRN-YLW 4-CONDUCTOR
095	1	600272-004	TERMINAL BLOCK-END PLATE
096	2	900233-002	NUT-LOCK K #4/40
112	4	900445-004	SCREW-B.H. TORX 6-32 UNC X .375
115	1	901022-001	BEARING-FLANGE-ALIGN
116	1	806275-001	PLATE-LOCATING LATCH
117	1	806400-001	SEAL-ROD LATCH
127	4	900445-006	SCREW-B.H. TORX 8-32 UNC X .375
136	1	806504-001	ASSY-CABLE FAN FILTER
137	2	806461-001	ASSY-CABLE OUTLET PROC
138	1	806462-001	ASSY-CABLE GOUND
139	1	600188-003	STRAIN RELIEF-CABLE
141	1	900891-007	PLUG-PLASTIC
142	1	808153-001	KIT-CHASSIS 46 CM
143	1	900289-003	BUSHING-GROMMET
150	1	806614-001	COVER-FILTER/FAN "96"
151	1	806503-001	ASSY-CABLE FI/GRD

PRINTWARE Confidential

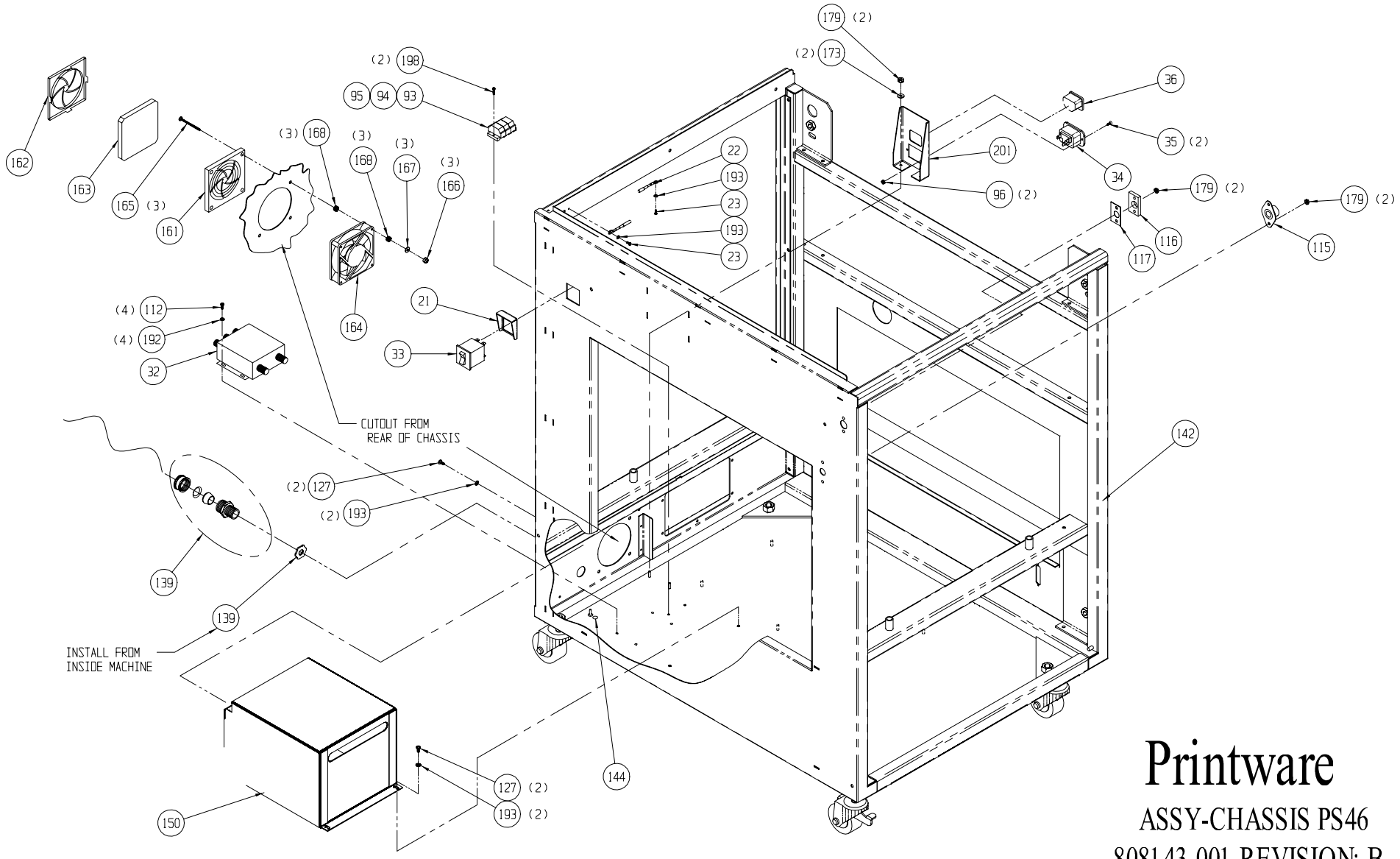
Assembly Number: 808143-001

ASSY-CHASSIS PLATESTREAM 46

Revision: B

157	4	806507-001	PLATE-CABLE RETAINING
161	1	900429-001	FAN GUARD ONLY FAN-S P/N 09362-G
162	1	900429-002	FAN RETAINER ONLY FAN-S P/N 09362-R
163	1	804677-001	MEDIA- 3-5/8 FAN FILTER
164	1	900894-001	FAN-AC 3610PS-23T-B30 230V
165	3	900172-017	SCREW-FLAT HD 6-32 X 2
166	3	900336-000	NUT-SELF LOCKING HEX 6-32
167	3	900160-004	WASHER-FLAT STEEL #6
168	6	900767-003	GROMMETS-VIBRATION ISOLATOR
170	2	900233	NUT-LOCK K, 6-32
171	1	803795-001	BRACKET-PUMP MOUTING
173	2	900160-005	WASHER-FLAT STEEL #8
179	6	900233-003	NUT-LOCK K #8-32
184	14	900774-002	SEAL-EMI C FOLD EA=FT
185	40	900774-003	SEAL-EMI C FOLD EA=FT
186	5.3	900774-006	SEAL-EMI .039 X .394
188	2.5	900774-008	SEAL-EMI .125 X .500
192	4	900047-002	WASHER-EXTERNAL LOCK #6
193	10	900047-000	WASHER-EXTERNAL LOCK #8
194	2	900224-002	SCREW, TAPTITE, PPH, 8-32 X 3/8
198	2	900287-004	SCREW-PAN PPH 4-40 X .50
200	1	900069-002	SCREW, LOCK KIT, .312 SCREW
201	1	807493-001	BRKT-CONNECTOR MOUNTING
202	1	806835-001	LABEL-HEATER POT BLUE ARROW
203	1	806835-002	LABEL-HEATER POT GRAY ARROW
204	1	806835-003	LABEL-HEATER POT BLUE INST.
205	1	806835-004	LABEL-HEATER POT GRAY INST.
206	1	806835-005	LABEL-HEATER POT ACT TEMP.
207	1	806835-006	LABEL-HEATER POT DRY TEMP.
208	1	808197-004	ASSY-CABLE EXTENSION (EXIT 1)

PRINTWARE Confidential



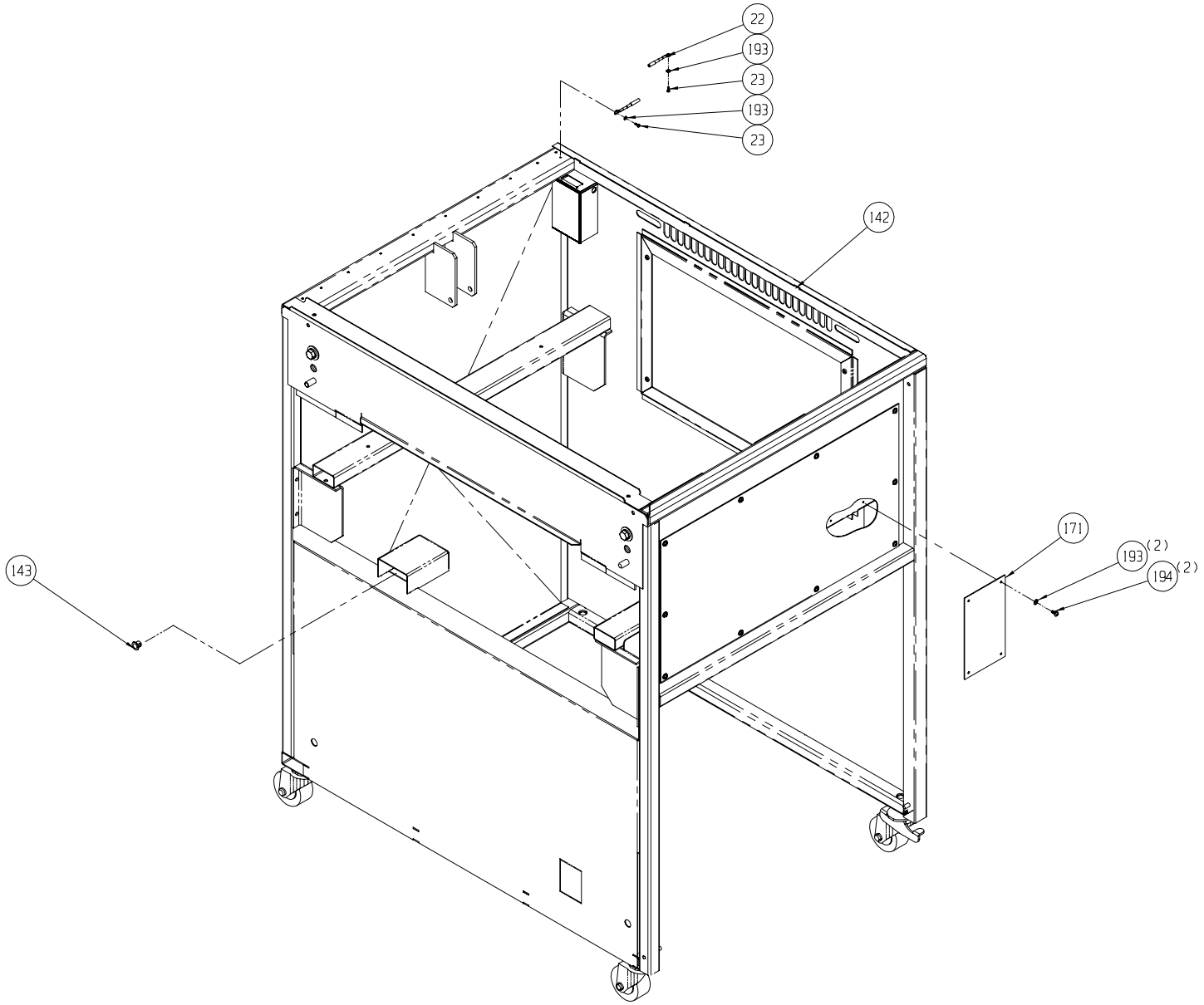
Printware

ASSY-CHASSIS PS46

808143-001 REVISION: B

Sheet 1 of 7

PRINTWARE Confidential



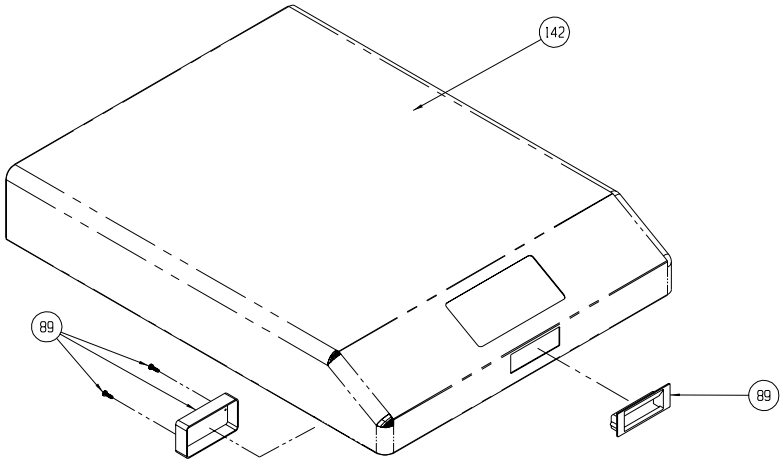
Printware

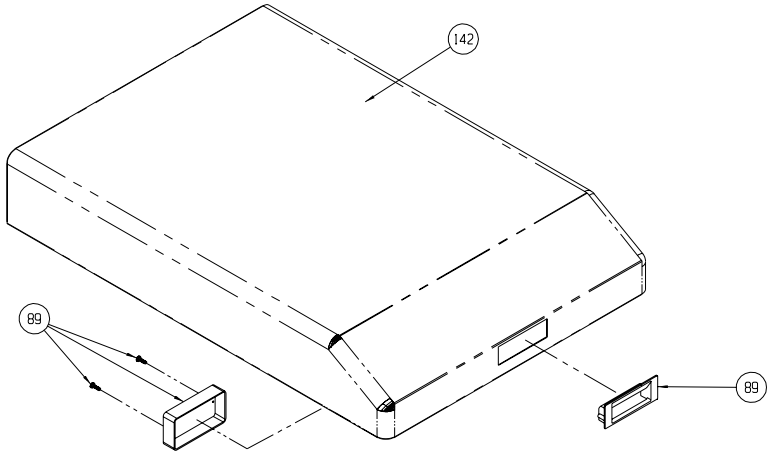
ASSY-CHASSIS PS46

808143-001 REVISION: B

Sheet 2 of 7

PRINTWARE Confidential



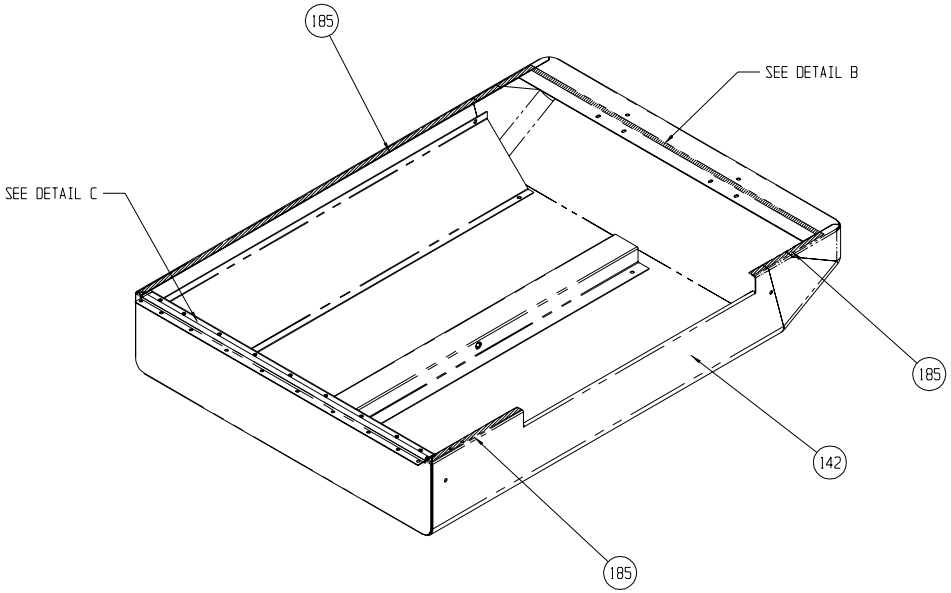


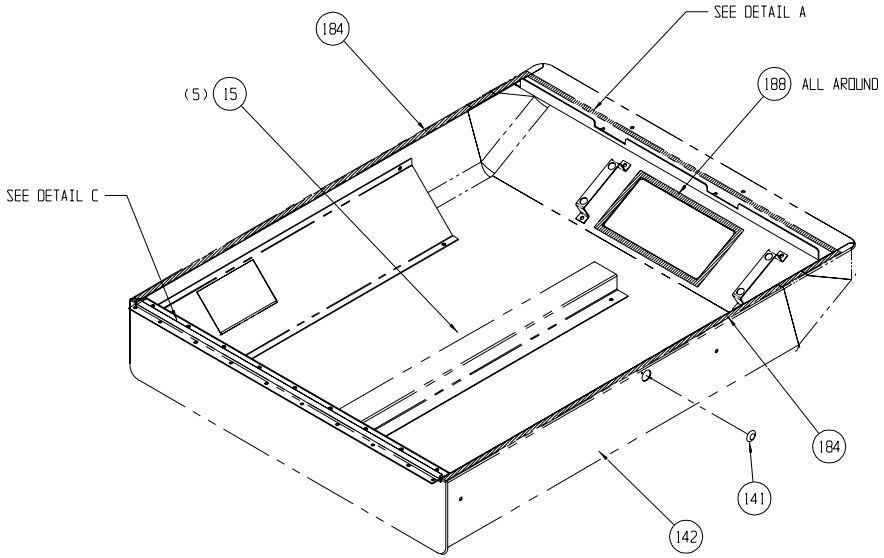
Printware

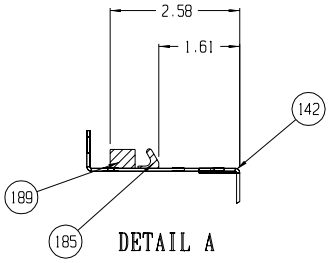
ASSY-CHASSIS PS46

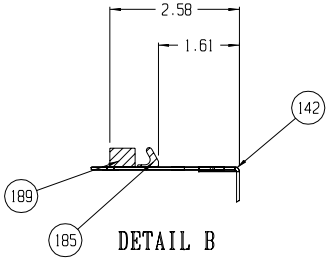
808143-001 REVISION: B

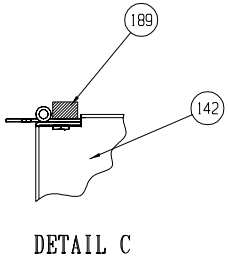
PRINTWARE Confidential











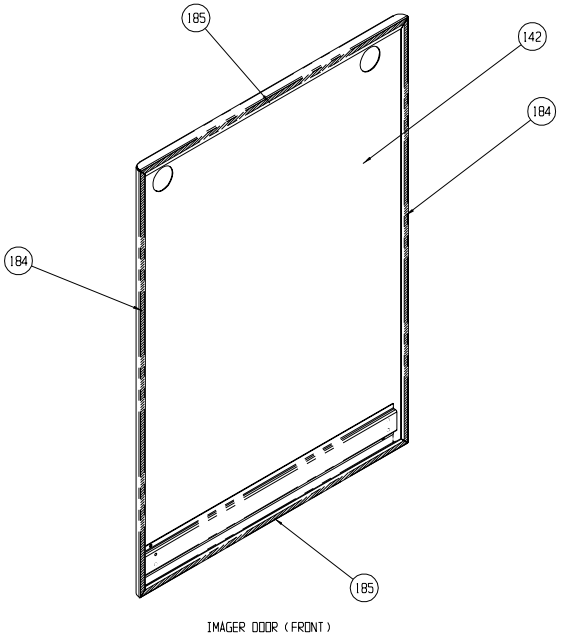
Printware

ASSY-CHASSIS PS46

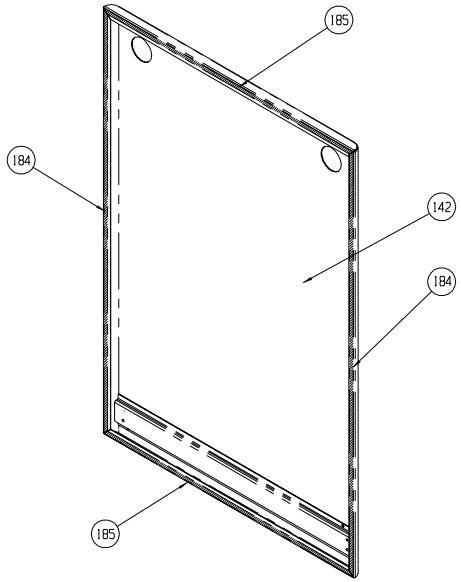
808143-001 REVISION: B

Sheet 4 of 7

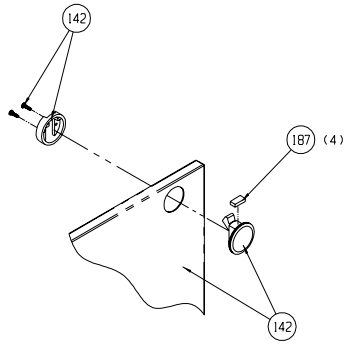
PRINTWARE Confidential

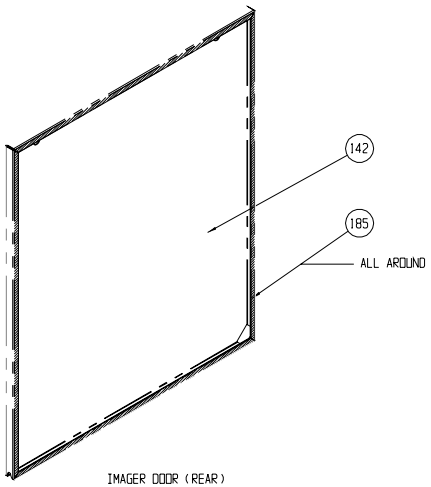


IMAGER DOOR (FRONT)



PROCESSOR DOOR





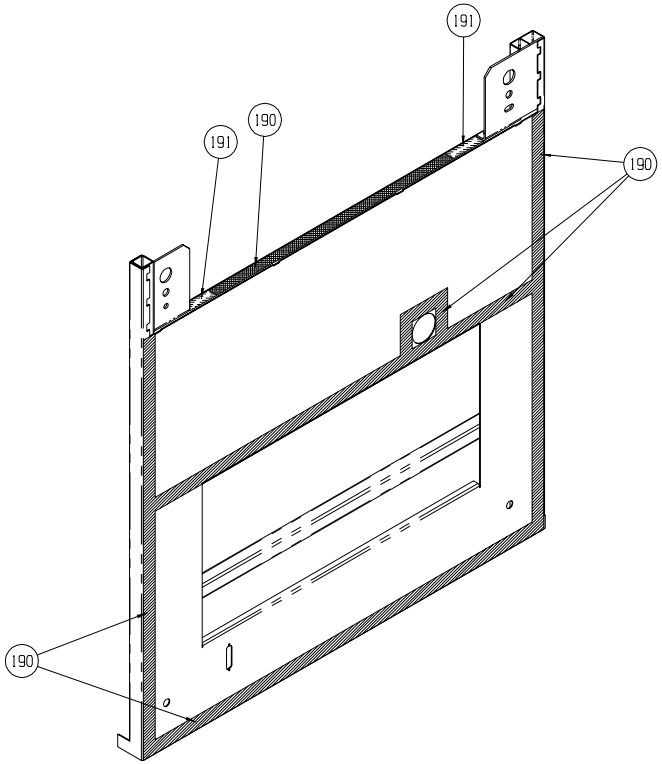
IMAGER DOOR (REAR)

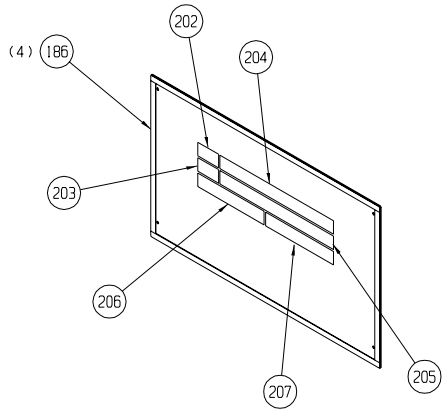
PRINTWARE Confidential

Printware

ASSY-CHASSIS PS46

808143-001 REVISION: B





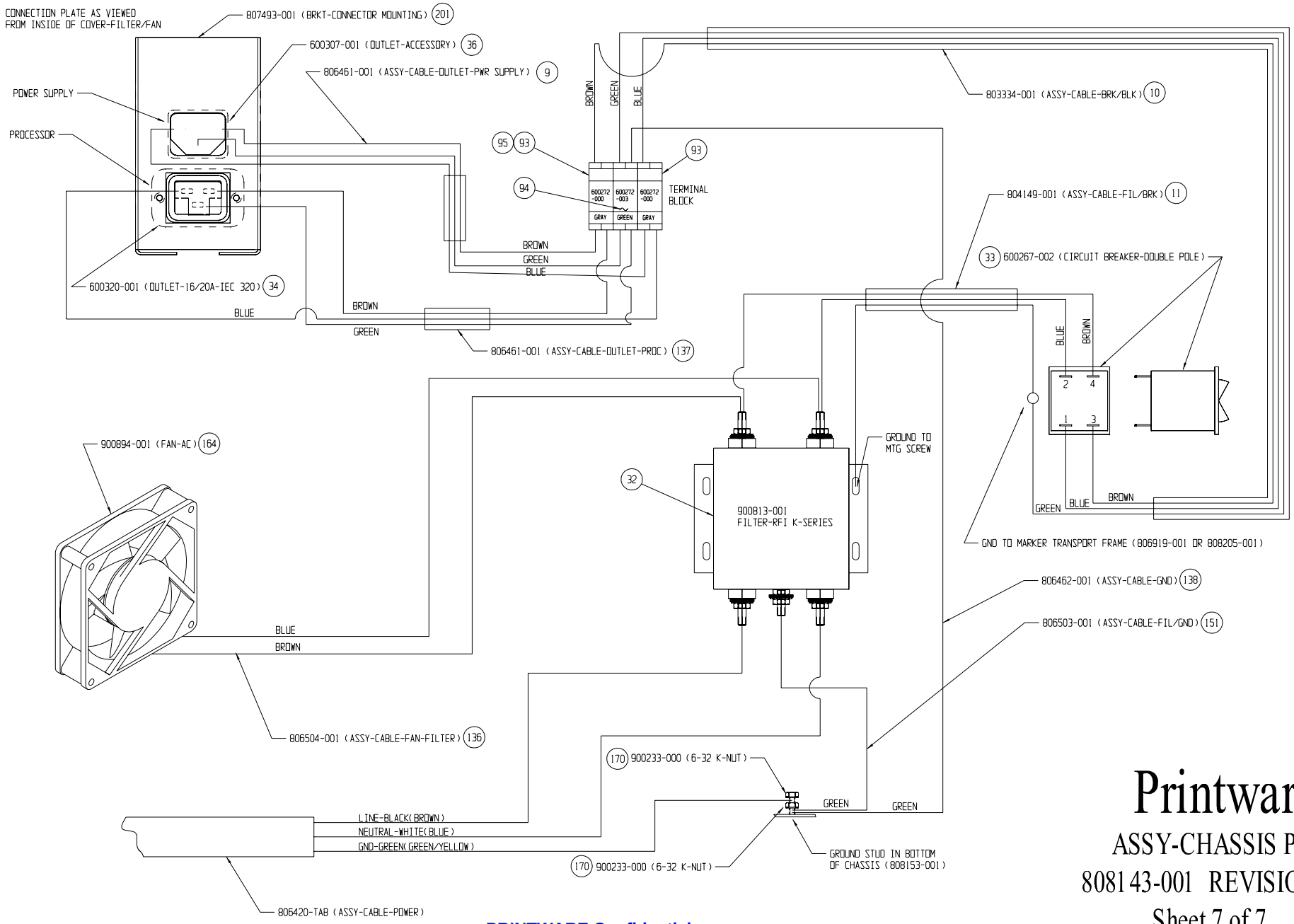
Printware

ASSY-CHASSIS PS46

808143-001 REVISION: B

Sheet 6 of 7

PRINTWARE Confidential



Printware

ASSY-CHASSIS PS46

808143-001 REVISION: B

Sheet 7 of 7

PRINTWARE Confidential

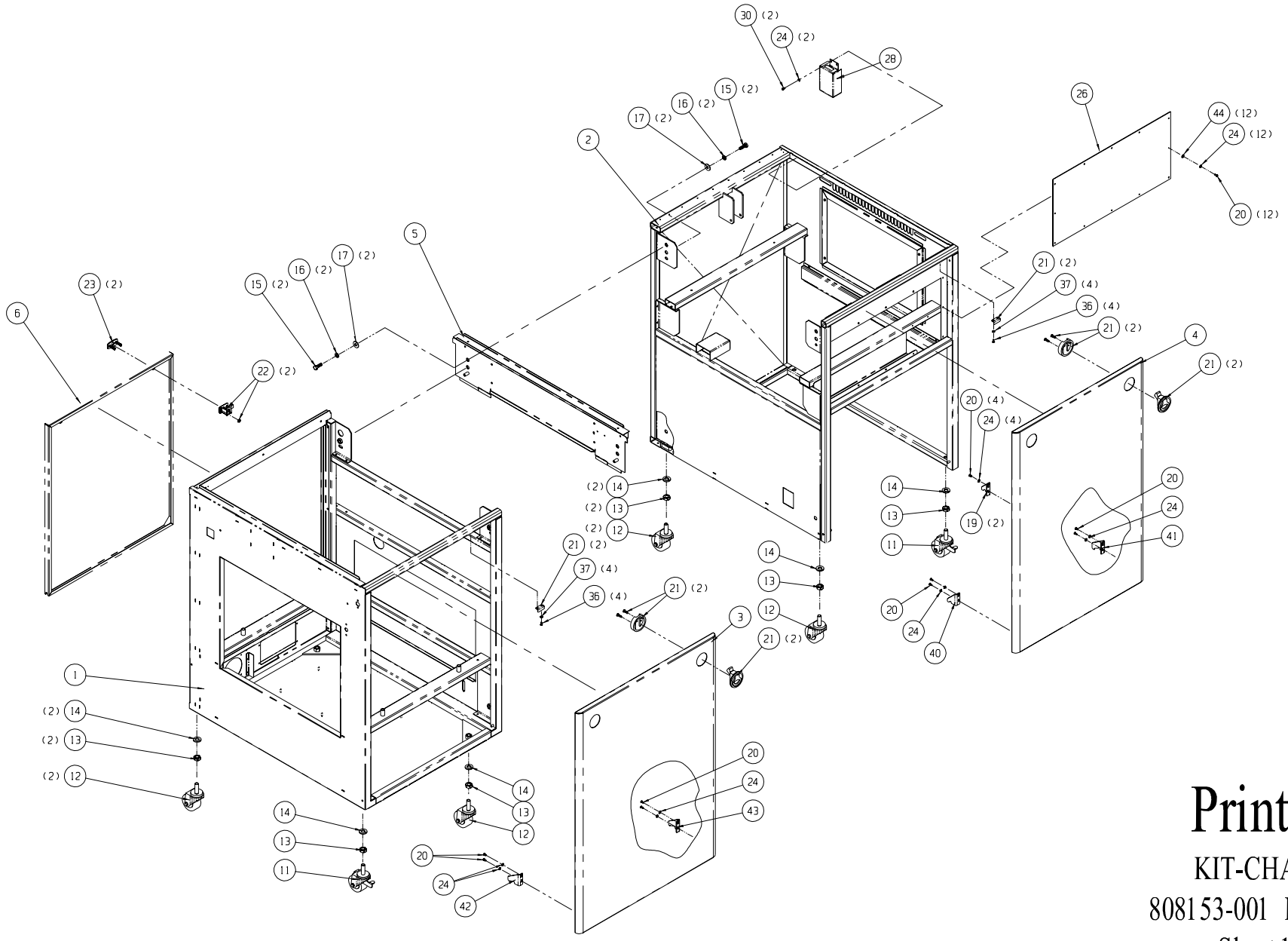
Assembly Number: 808153-001

KIT-CHASSIS PLATESTREAM 46

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	807498-001	CHASSIS-IMAGER
002	1	806619-001	CHASSIS-PROCESSOR
003	1	806556-001	PANEL-IMAGER FRONT "96"
004	1	806557-001	PANEL-ACCESS PROC "96"
005	1	808164-001	INTERFACE-CHASSIS
006	1	806608-001	PANEL-IMAGER REAR "96"
007	1	806607-001	HINGE-CONTINUOUS IMAGER
008	1	806607-002	HINGE-CONTINUOUS PROCESSOR
009	1	808183-001	COVER-PROCESSOR
010	1	808184-001	COVER-IMAGER
011	2	901019-001	CASTER-SWIVEL STEM W/BRAKE
012	6	901019-002	CASTER-SWIVEL STEM W/O BRAKE
013	8	900222-008	NUT, HEX, UNC 1/2-13
014	8	900223-009	WASHER-LOCK HELICAL SPRING 1/2 REG.
015	6	900173-004	BOLT-HEX HD UNC THREAD 3/8 X 1
016	6	900223-006	WASHER-LOCK HELICAL SPRING 3/8 REG.
017	6	900160-007	WASHER-FLAT STEEL # 3/8
020	78	900287-003	SCREW-PAN PPH 8-32 X .38
021	5	900823-002	LATCH-PULL FLUSH
022	2	900594-004	LATCH-VISE ACTION
023	2	900594-005	LATCH-VISE ACTION
024	78	900047-000	WASHER-EXTERNAL LOCK #8
025	4	806627-001	BRACKET-CATCH MOUNTING
026	1	808186-001	PANEL-ACCESS PROCESSOR PUMP
027	1	806615-001	BRACKET-INTERLOCK
028	1	806634-001	BRACKET-INTERLOCK MOUNTING
029	2	900233	NUT-LOCK K, 6-32
030	2	900224-005	SCREW, TAPTITE, PPH, 8-32 X .50
031	1	806415-001	PANEL-ACCESS 54
032	4	901103-002	CATCH-SNAP IN
033	8	900287-005	SCREW-PAN PPH 4-40 X .38
034	8	900160-008	WASHER-FLAT STEEL # 4, REGULAR
035	8	900233-002	NUT-LOCK K #4/40
036	16	900288-003	SCREW-PPH 10-32 X 3/8
037	16	900047-003	WASHER-EXTERNAL LOCK #10
038	16	900904-002	SPACER-THREADED HEX
040	1	806646-001	HINGE-PROCESSOR DOOR
041	1	806646-002	HINGE-PROCESSOR DOOR
042	1	806635-001	BRACKET-DOOR HINGE
043	1	806635-002	BRACKET-DOOR HINGE
044	16	900160-012	WASHER-FLAT STEEL #8 NARROW

PRINTWARE Confidential

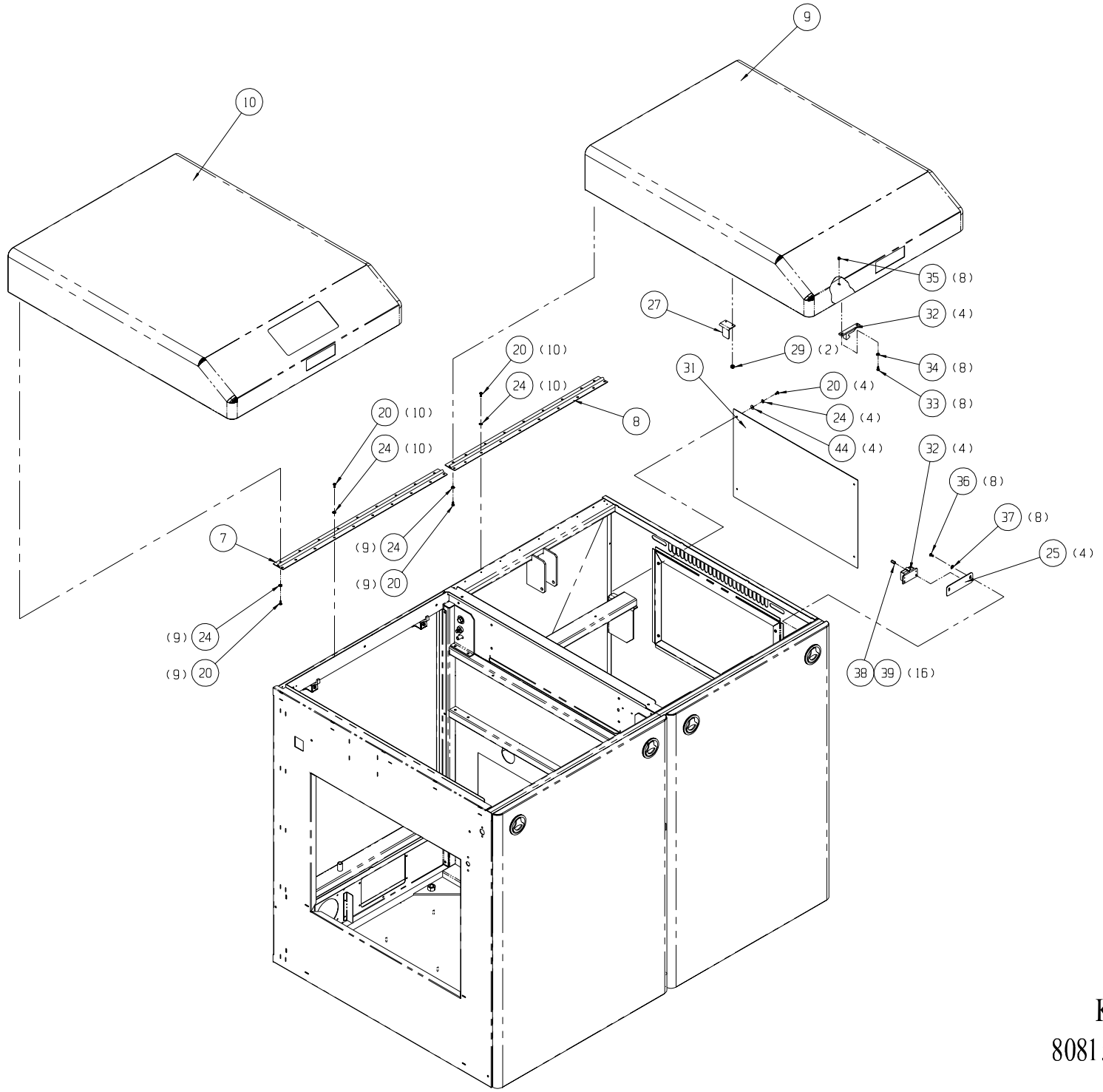


PRINTWARE Confidential

Printware

KIT-CHASSIS PS46

808153-001 REVISION: C



Printware

KIT-CHASSIS PS46

808153-001 REVISION: C

Sheet 2 of 2

PRINTWARE Confidential

Assembly Number: 808344-XXX

ASSY-ROLLER TRANSPORT PLATESTREAM 46

Revision: D

Find Number	Quantity Used	Component Number	Component Description
002	1	808205-001	WELDMENT-ROLLER TRANSPORT
003	4	804288-001	ROLLER-SEGMENTED 18"
004	2	808220-001	ROLLER-FEED 18"
005	2	900297-001	BEARING-BALL
006	2	803305-001	RETAINER-BEARING
007	1	808218-001	BRACKET-CAPSTAN DRIVE MOUNTING
009	1	900871-008	SCREW-SHC LOW HEAD 1/4-28 X 1.5
010	1	900928-002	NUT-HEX JAM 5/8-18
011	1	822307	WASHER-PRELOAD SPRING M.T.
012	18	900229-002	E-RING, SAE, 3/8 SHAFT
014	2	807350-002	ROLLER-PINCH TRACTION 18"
015	1	901023-001	BUTTON-LOCATING ADJ.
017	2	900360-000	WASHER-WAVE SPRING 22MM OD X .010
018	2	803418-001	ASSY-LOWER PINCH TENSION
019	4	803419-001	ASSY-DRIVE/EXIT ROLLER TENSION
020	1	804627-001	ASSY-CAPSTAN DRIVE
022	1	803463-001	ASSY-UPPER PINCH TENSION R.H.
023	1	803466-001	ASSY-UPPER PINCH TENSION L.H.
023	1	808215-001	GUIDE-UPPER EXIT
024	1	808208-001	GUIDE-LOWER BUFFER
029	1	808209-001	GUIDE-UPPER BUFFER
031	1	808214-001	GUIDE-LOWER EXIT
032	1	808213-001	GUIDE-UPPER CUTTER
033	1	808212-001	GUIDE-LOWER CUTTER
038	1	804477-001	ROLLER-ALUMINUM IMAGE
042	2	803744-001	ASSY-PULLEY OVERRUNNING CLUTCH
043	1	806327-001	PLATE-MARKER LOCATING LOWER
047	1	808227-001	BRACKET-CUTTER MTG 46CM
048	1	807068-001	BRACKET-CUTTER MOUNTING
049	1	806309-001	BRACKET-CUTTER MOUNTING
050	1	808199-001	ASSY-CUTTER 18"
051	2	901026-001	LATCH-COMPRESSION ASSEMBLY
052	1	806623-001	ROD-5/16 HEX - SST
053	1	806617-001	HUB-HANDLE
054	1	806618-001	SHAFT-HANDLE
055	1	901102-001	KNOB-OVAL TAPERD
056	2	901070-003	SCREW-SET STAINLESS 10-32 X .188
060	1	803557-001	SHAFT-IDLER ARM BEARING
064	1	803741-002	PULLEY-MOD
065	2	803772-001	PULLEY-MOD 130 TOOTH W/INSERT
067	1	900569-001	BELT-TIMING 165 GROOVES 1/4" W
068	2	900569-008	BELT-TIMING 184 GROOVES 1/4" W

PRINTWARE Confidential

Assembly Number: 808344-XXX

ASSY-ROLLER TRANSPORT PLATESTREAM 46

Revision: D

069	1	900569-037	BELT-TIMING 434 GROOVES
071	1	808451-001	GUIDE-INPUT LOWER
072	1	808450-001	GUIDE-INPUT TOP
079	14	806228-001	BRACKET-LOWER SOLID MOUNTING
083	10	806239-001	BRACKET-UPPER GUIDE MOUNTING
084	1	807216-001	BLOCK-EDGE GUIDE POSITIONING
085	1	807215-001	BLOCK-EDGE GUIDE ADJUSTABLE
088	3	807064-001	BRIDGE-MEDIA INPUT
090	1	807354-001	PULLEY-MOD. 65 GR.
092	1	807356-001	ASSY-PULLEY OVERRUNNING CLUTCH
093	1	807363-001	ASSY-BELT TENSIONER
094	1	807359-001	SHAFT-BELT TENSIONER
106	6	807091-001	ASSY-SWITCH
107	1	808197-001	ASSY-CABLE EXTENSION (LOAD OK)
108	1	808197-002	ASSY-CABLE EXTENSION (EX LOOP)
110	1	807091-004	ASSY-SWITCH
118	1	806330-001	ARM-IDLER
119	2	806347-001	BRACKET-IDLER
120	2	806348-001	SHAFT-IDLER
121	10	900229-001	E-RING, SAE, 1/4 SHAFT
122	2	806199-001	PULLEY-MOD.
123	4	900235-013	SCREW-SHC 6-32 X .25
124	2	803666-001	ASSY-MOTOR MOUNT
125	2	806393-001	BRACKET-BEARING SUPPORT
126	2	806389-001	BRACKET-GAS CYLINDER
128	16	900160-006	WASHER-FLAT STEEL #10
129	8	900225-001	WASHER, FLAT STEEL, .25 DIA.
130	8	900236-012	SCREW-SOCKET HD SHLD 10-32 X .2505
131	8	900047-003	WASHER-EXTERNAL LOCK #10
132	8	900288-000	SCREW-PPH 10-32 UNF X 1/2
134	2	900406-006	BEARING-OIL LESS BRONZE DB1122
135	1	806267-001	SHAFT-MARKER .5"
136	4	806585-001	BEARING-MODIFIED SELF ALIGN
137	1	900254-002	SPACER-SHAFT INNER 1/2ID X 1/16
142	1	900039-001	SPACER .171 ID, .25 OD, .25 HT
151	1	804574-001	PULLEY-DUAL CAPSTAN
152	1	900582-007	PIN-DOWEL SST .125O DIA X .625 LG
154	1	806331-001	SHAFT-DRIVE LINKAGE
158	1	808152-001	ASSY-CAPSTAN GUIDE
160	2	806360-001	BRACKET-CABLE MTG
161	2	806381-001	PLATE-CLAMP
163	2	807066-001	BRACKET-UNLOAD ROLLER FEED
164	2	807067-001	PLATE-TORQUE
165	4	900223-004	WASHER-LOCK HELICAL SPRING #8 REG.

PRINTWARE Confidential

Assembly Number: 808344-XXX

ASSY-ROLLER TRANSPORT PLATESTREAM 46

Revision: D

166	11	900235-005	SCREW-SHC 8-32 X .38
170	1	808219-001	PLATE-UNLOAD ARM
171	5	900276-007	WASHER-NYLON WEAR .189 ID X .410 OD
172	1	900236-009	SCREW-SOCKET HD SHLD 10-32 X .1880
173	6	900236	SCREW-SOCKET HD SHLD 8-32 X .188
174	1	900275-003	SPRING-TORSION, LT045H-4L
175	4	900222-002	NUT, HEX, UNC #8
177	5	900324-001	WASHER-CURVED SPRING 3/8
178	2	900235-035	SCREW-SHC 1/4-20 X 1/2
181	2	803456-001	PLATE-FI IDLER
182	4	900406-002	BEARING OIL LESS BRONZE DB119
184	2	803713-001	COLLAR-PULLEY
185	4	900235-001	SCREW-SHC 6-32 X .50
186	6	900229-003	E-RING, SAE, 1/2 SHAFT
187	1	901024-001	KNOB-PULL
188	2	804703-001	WASHER-MOD.
189	1	804704-001	ROD-PIVOT
193	2	900319-002	BEARING-NON METALLIC, FLANGED
194	2	803697-001	BAR-UNLOADING
195	2	806304-001	LINK-PINCH UNLOADING
198	1	900235-007	SCREW-SHC 4-40 X .50
199	1	900566-001	KNOB-KNURLED SHC #4
206	2	900223-000	WASHER-LOCK HELICAL SPRING 1/4 REG.
209	2	900160-009	WASHER-FLAT STEEL # 1/4 REGULAR
250	18	900233	NUT-LOCK K, 6-32
251	4	900229-009	E-RING SAE .750 SHAFT
253	1	900229-008	E-RING SAE .625 SHAFT
254	1	900236-008	SCREW-SOCKET HD SHLD 8-32 X .2505
262	12	900287-017	SCREW-PAN PPH 4-40 X .63
263	12	900233-002	NUT-LOCK K #4/40
264	82	900445-006	SCREW-B.H. TORX 8-32 UNC X .375
265	1	900047-000	WASHER-EXTERNAL LOCK #8
267	10	900261-004	RECEPTACLE- 1/4 TURN
268	10	900875-002	RING-EXTERNAL RETAINING
269	20	900958-001	NUT-RECEPTACLE RETAINING
270	10	900839-002	FASTENER-1/4 TURN PUSH BUTTON
271	3	900277-023	SPRING-COMPRESSION .75X.360X.038
273	1	900277-029	SPRING-COMPRESSION 2.00 X .660X.072
274	1	900566-003	KNOB-KNURLED SHC #8
275	6	900172-002	SCREW-FLAT HEAD 6-32 X .38
276	38	900160-005	WASHER-FLAT STEEL #8
277	21	900233-003	NUT-LOCK K #8-32
278	5	900235-000	SCREW-SHC 8-32 X .75
279	12	900235-005	SCREW-SHC 8-32 X .38

PRINTWARE Confidential

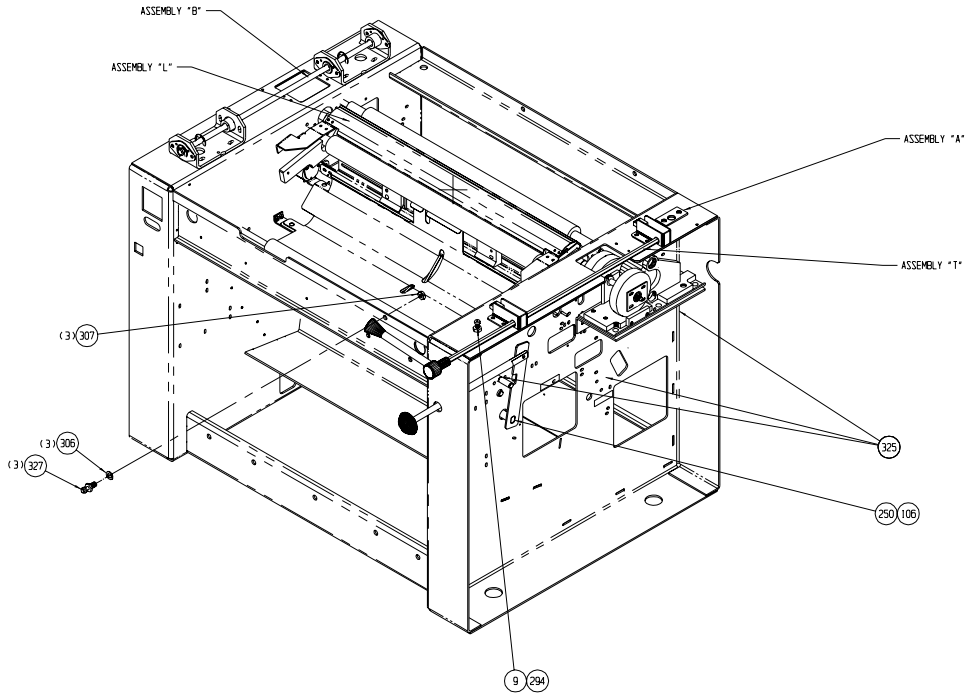
Assembly Number: 808344-XXX

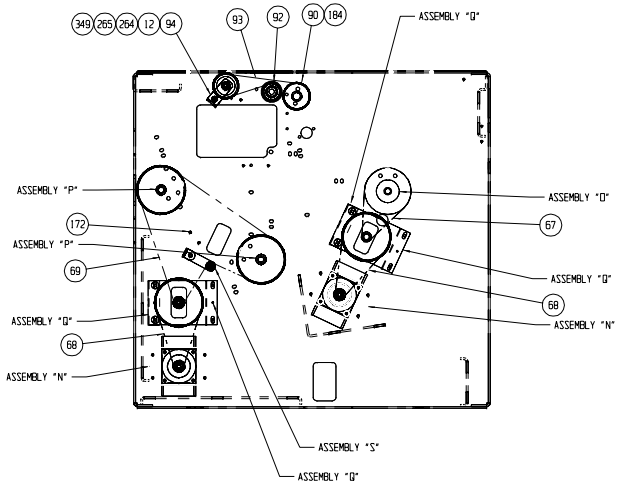
ASSY-ROLLER TRANSPORT PLATESTREAM 46

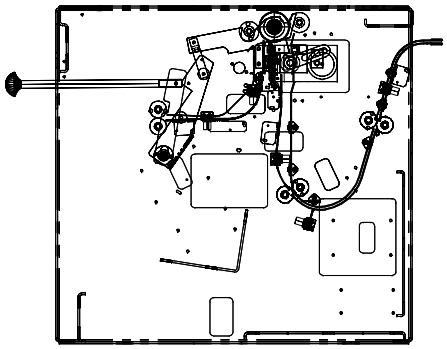
Revision: D

281	1	900963-002	PLUNGER-SPRING LOADED
282	1	900236-005	SCREW-SOCKET HD SHLD 8-32 X .6255
283	15	900224-005	SCREW, TAPTITE, PPH, 8-32 X .50
284	2	900871-007	SCREW-SHC LOW HEAD 6-32 X .250
287	8	900235-002	SCREW-SHC 8-32 X .50
288	1	900172-003	SCREW-FLAT HD 6-32 X .5
289	1	900236-001	SCREW-SOCKET HD SHLD 10-32 X .500
290	8	900224-002	SCREW, TAPTITE, PPH, 8-32 X 3/8
291	18	900319-001	BEARING-NON METALLIC, FLANGED
292	1	900254-003	SPACER-SHAFT INNER
293	1	900276-006	WASHER-NYLON WEAR .253 ID X .568 OD
294	2	900928-003	NUT-HEX JAM 1/4 X 28
295	8	900235-040	SCREW-SHC 8-32 X 5/8
297	1	900160-012	WASHER-FLAT STEEL #8 NARROW
298	1	900235-041	SCREW-SHC 8-32 X 1 1/4
306	3	900223-007	WASHER-LOCK HELICAL SPRING 5/16 REG
307	3	900222-003	NUT-HEX UNC 5/16-18
308	2	900651-019	WASHER-FENDER .434 X .160 X .125
309	4	900445-009	SCREW-B.H. TORX 8-32 UNC X .750
310	2	900359-001	SPACER-.375 ID X .093 THICK
312	1	807093-003	LABEL-PLATE GUIDE POS. EDGE GUIDE
313	1	807093-004	LABEL-PLATE GUIDE POS. EDGE GUIDE
315	1	807093-006	LABEL-PLATE GUIDE POS.
323	1	806352-002	PLATE-ADJUST
324	1	806354-002	PLATE-POSITIONING BLOCK BACKUP
325	3	806870-001	SPRING-TENSION MOD.
326	2	803418-002	ASSY-LOWER PINCH TENSION
327	3	900257	STUD- 10MM BALL- 5/16-18 THREAD
347	1	806099-002	ASSY-SOLENOID-CAPSTAN GUIDE
348	1	806099-001	ASSY-SOLENOID-CAPSTAN GUIDE
349	1	807502-001	SPRING-TRACTION CONTROL 18"
350	2	900236-003	SCREW-SOCKET HD SHLD 8-32X.125

PRINTWARE Confidential







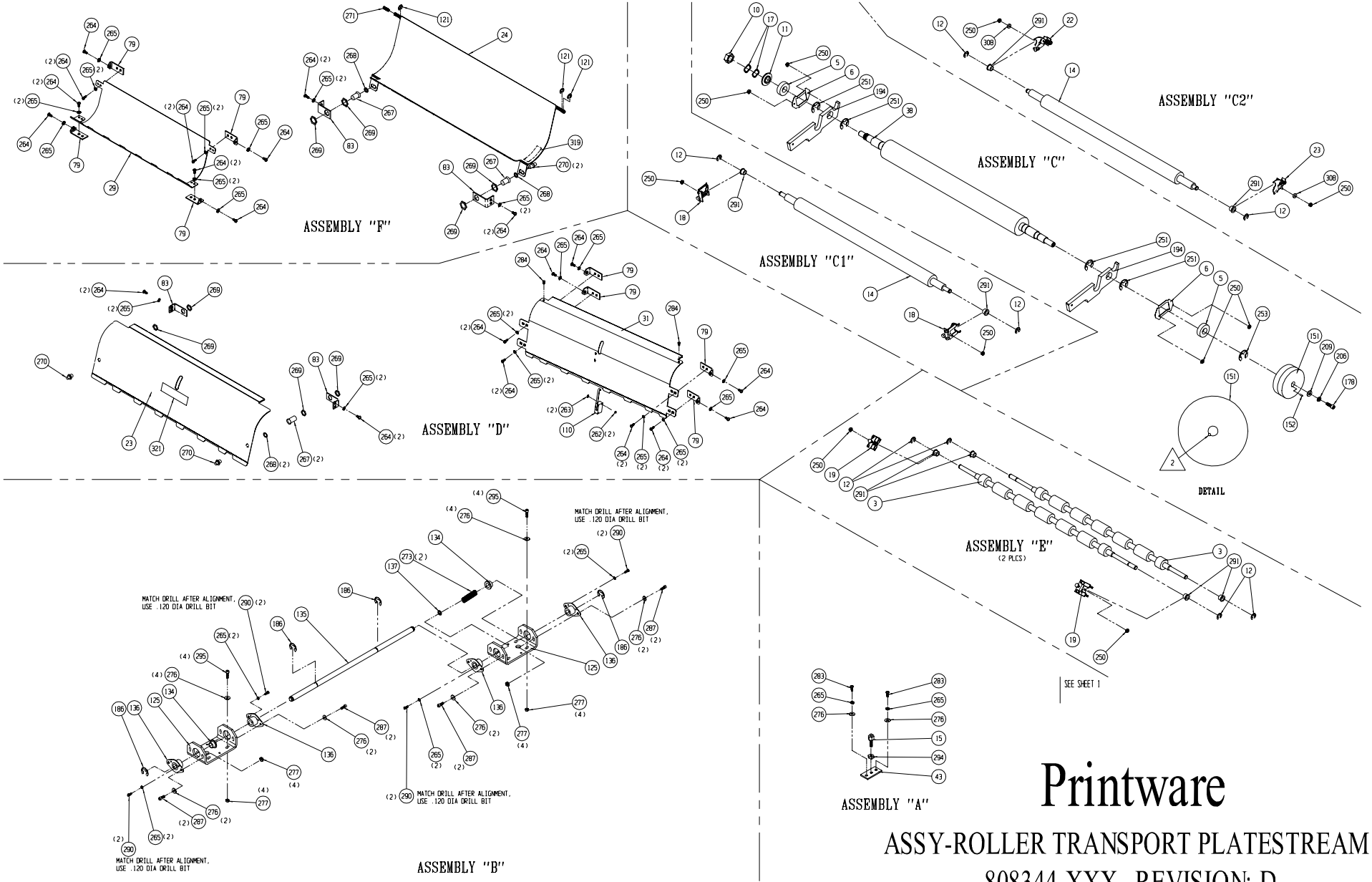
Printware

ASSY-ROLLER TRANSPORT PLATESTREAM 46

808344-XXX REVISION: D

Sheet 1 of 4

PRINTWARE Confidential



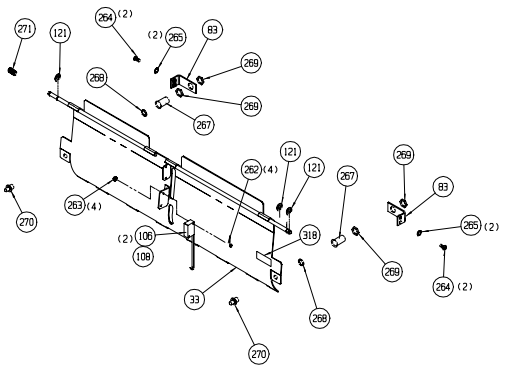
Printware

ASSY-ROLLER TRANSPORT PLATESTREAM 46

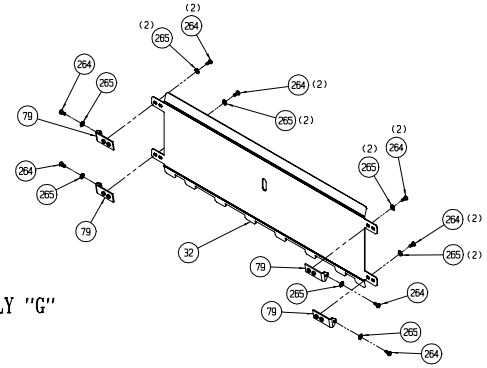
808344-XXX REVISION: D

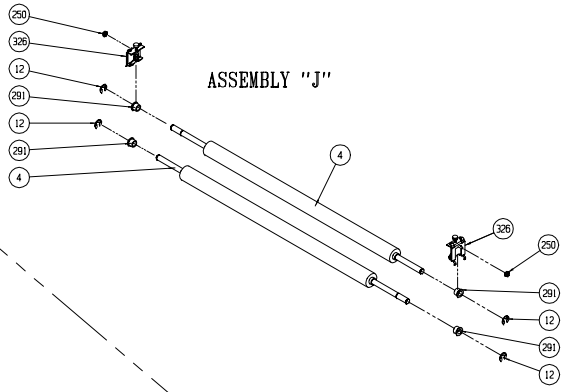
Sheet 2 of 4

PRINTWARE Confidential

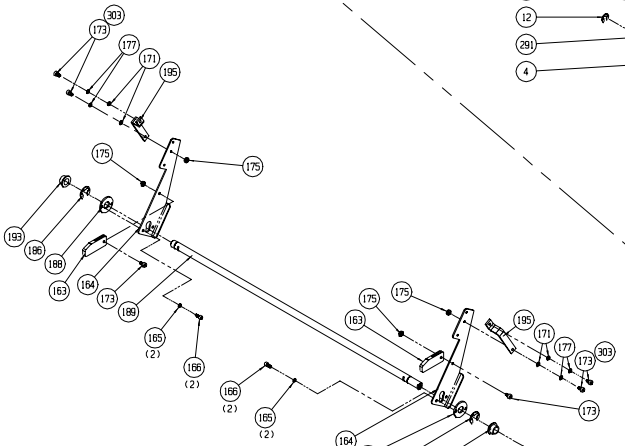


ASSEMBLY "G"

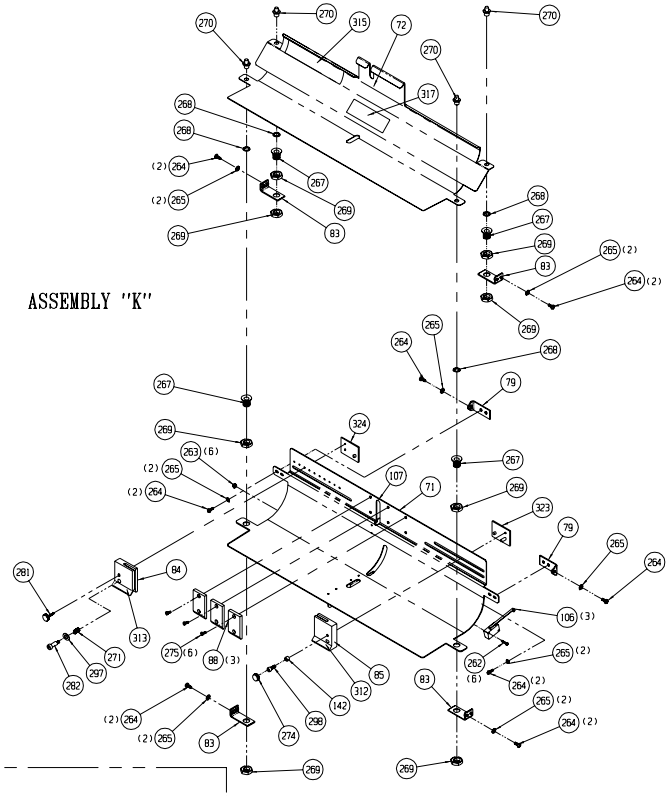




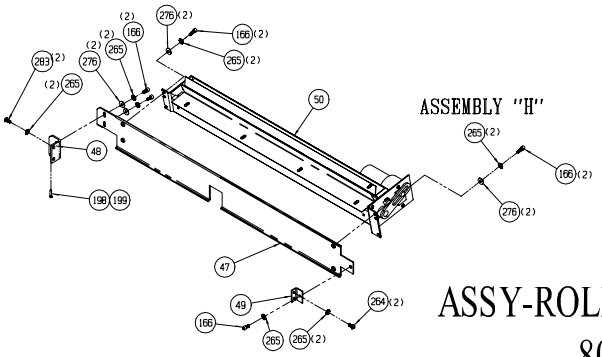
ASSEMBLY "J"



ASSEMBLY "I"



ASSEMBLY "K"



ASSEMBLY "H"

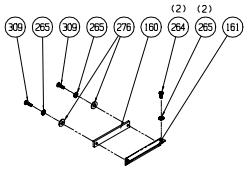
Printware

ASSY-ROLLER TRANSPORT PLATESTREAM 46

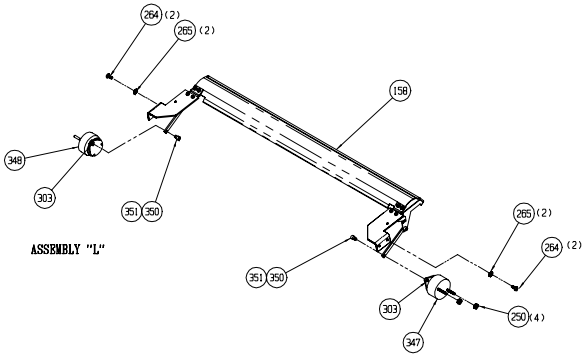
808344-XXX REVISION: D

Sheet 3 of 4

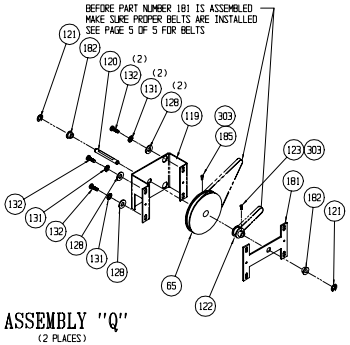
PRINTWARE Confidential



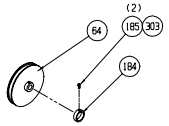
ASSEMBLY "S"
(2 PLACES)



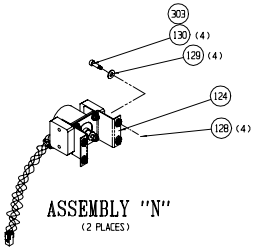
ASSEMBLY "L"


BEFORE PART NUMBER 181 IS ASSEMBLED
MAKE SURE PROPER BELTS ARE INSTALLED
SEE PAGE 5 OF 5 FOR BELTS
121 182 120 (2) 132 (2) 131 (2) 126 119 303 185 123 303 181 182 121
132 131 132 128 131 128 65 122

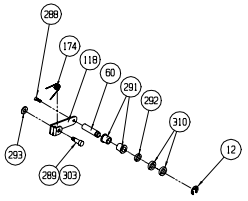
ASSEMBLY "Q"
(2 PLACES)



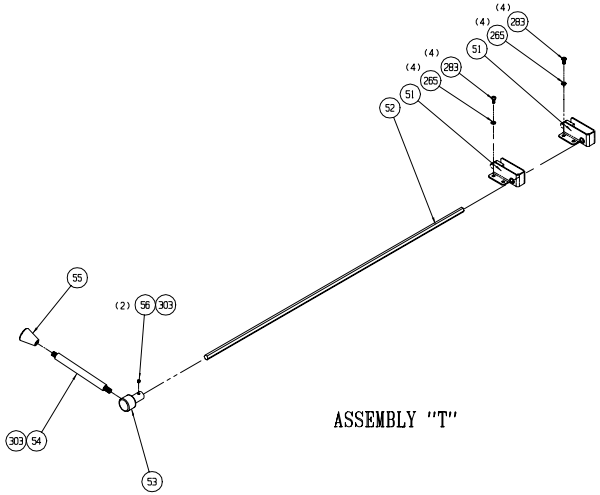
ASSEMBLY "O"



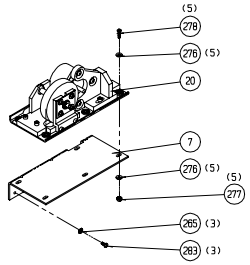
ASSEMBLY "N"
(2 PLACES)



ASSEMBLY "R"



ASSEMBLY "T"



ASSEMBLY "M"

ASSEMBLY "P"
(2 PLACES)

Printware

ASSY-ROLLER TRANSPORT PLATESTREAM 46

808344-XXX REVISION: D

Sheet 4 of 4

PRINTWARE Confidential

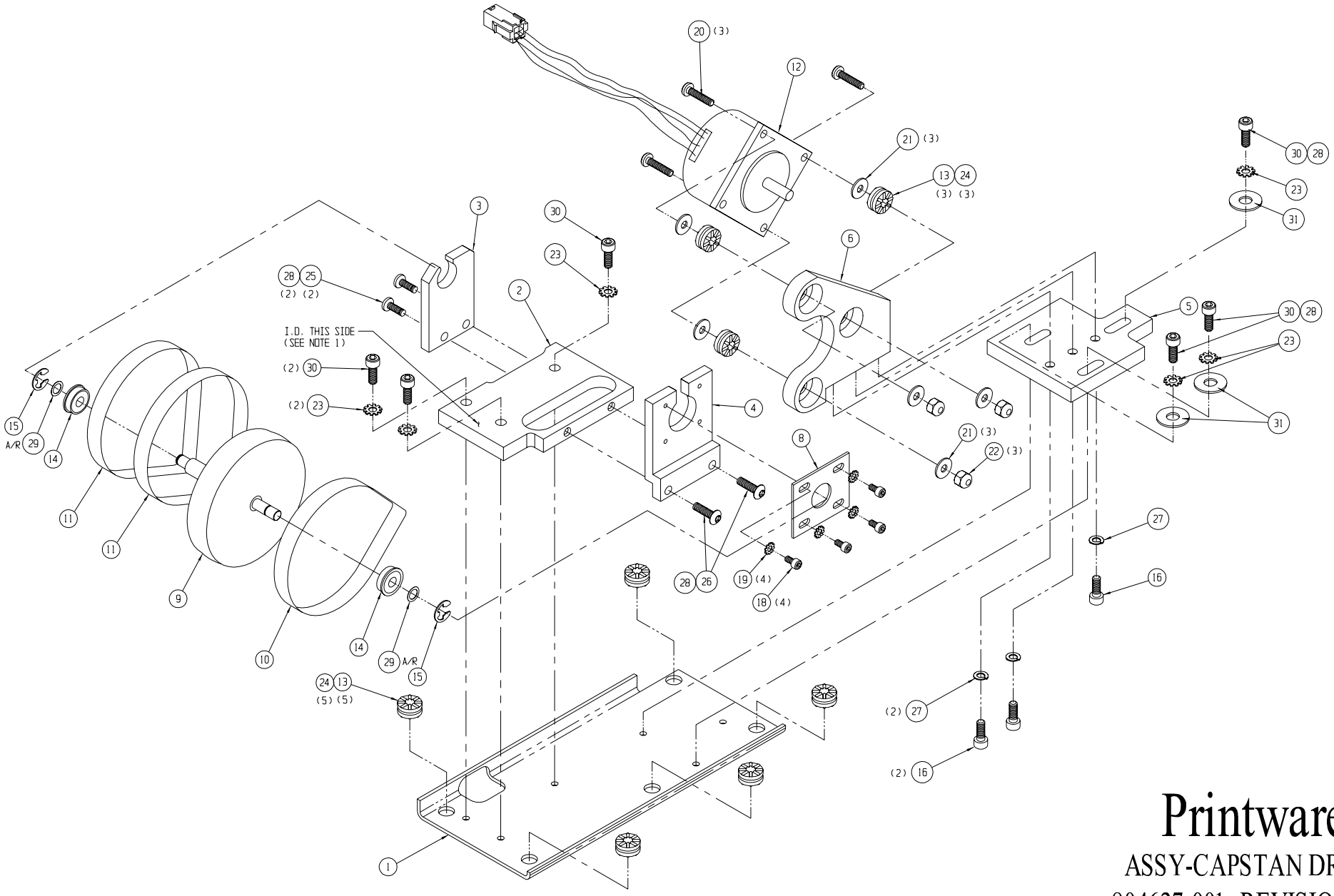
Assembly Number: 804627-001

ASSY-CAPSTAN DRIVE

Revision: K

Find Number	Quantity Used	Component Number	Component Description
001	1	804370-001	PLATE-DRIVE MOUNTING
002	1	804357-001	PLATE-PULLEY MOUNTING BASE
003	1	804356-001	PLATE-PULLEY MOUNTING LEFT SIDE
004	1	804358-001	PLATE-PULLEY MOUNTING RIGHT SIDE
005	1	804355-001	PLATE-MOTOR BRACKET MOUNTING
006	1	804354-001	BRACKET-MOTOR MOUNTING CAPSTAN
008	1	803391-001	CAPSTAN-DRIVE BRG ADJUST
009	1	804359-001	PULLEY-COATED CAPSTAN LOWER
010	1	900800-001	BELT-FLAT
011	2	900781-008	BELT-FLAT 11.50 X .400 X .018
012	1	804628-001	ASSY-MOTOR-STEPPING
013	8	900767-001	GROMMETS-VIBRATION ISOLATOR
014	2	900296	BEARING-BALL FLANGED
015	2	900229-001	E-RING, SAE, 1/4 SHAFT
016	3	900340	SCREW-SKT HD CAP UNIF 10-32 X 1/2
018	4	900235-013	SCREW-SHC 6-32 X .25
019	4	900047-002	WASHER-EXTERNAL LOCK #6
020	3	900287-020	SCREW-PAN PPH 8-32 X 1.00
021	6	900160-005	WASHER-FLAT STEEL #8
022	3	900336-001	NUT-SELF LOCKING HEX 8-32
023	6	900047-003	WASHER-EXTERNAL LOCK #10
024	8	900652-014	SPACER-ROUND #8 X 1/4
025	2	900288-000	SCREW-PPH 10-32 UNF X 1/2
026	2	900445	SCREW-B.H. TORX 10-32 X .625
027	3	900223-005	WASHER-LOCK HELICAL SPRING #10 REG.
030	6	900340-003	SCREW-SKT HD CAP UNIT 10-32 X 3/4
031	3	900160-006	WASHER-FLAT STEEL #10

PRINTWARE Confidential



Printware

ASSY-CAPSTAN DRIVE

804627-001 REVISION: K

Sheet 1 of 1

PRINTWARE Confidential

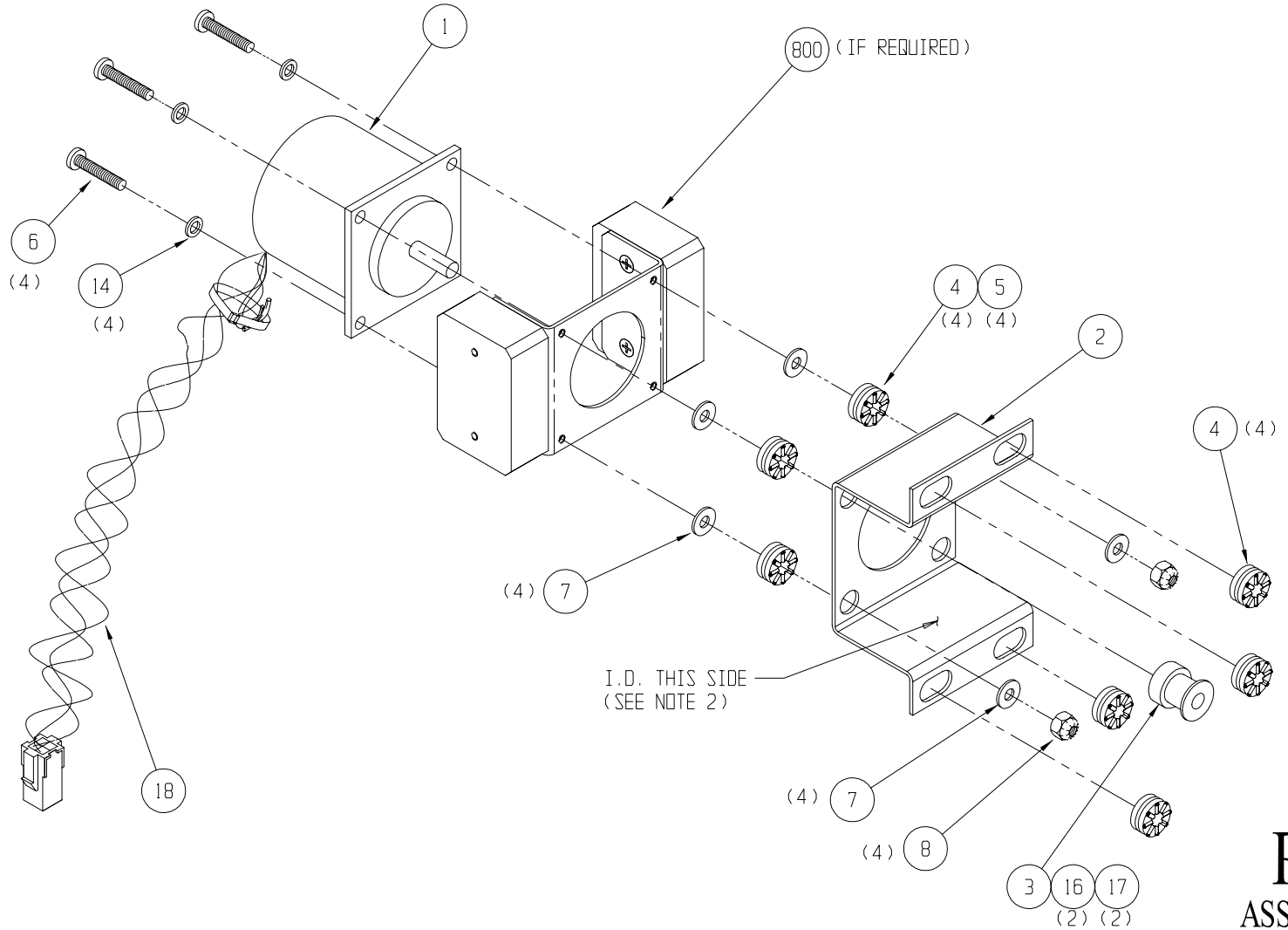
Assembly Number: 803666-001

ASSY-MOTOR MOUNT

Revision: N

Find Number	Quantity Used	Component Number	Component Description
001	1	806098-002	ASSY-MOTOR TAKEUP DRIVE
002	1	803665-001	BRACKET-MOTOR MOUNT
003	1	806199-001	PULLEY-MOD.
004	8	900767-001	GROMMETS-VIBRATION ISOLATOR
005	4	900652-014	SPACER-ROUND #8 X 1/4
006	4	900287-016	SCREW-PAN PPH 6-32 X 1
007	8	900160-004	WASHER-FLAT STEEL #6
008	4	900336-000	NUT-SELF LOCKING HEX 6-32
014	4	900160-011	WASHER-FLAT STEEL # 6, NARROW
016	2	900235-013	SCREW-SHC 6-32 X .25

PRINTWARE Confidential



Printware

ASSY-MOTOR MOUNT

803666-001 REVISION: N

Sheet 1 of 1

PRINTWARE Confidential

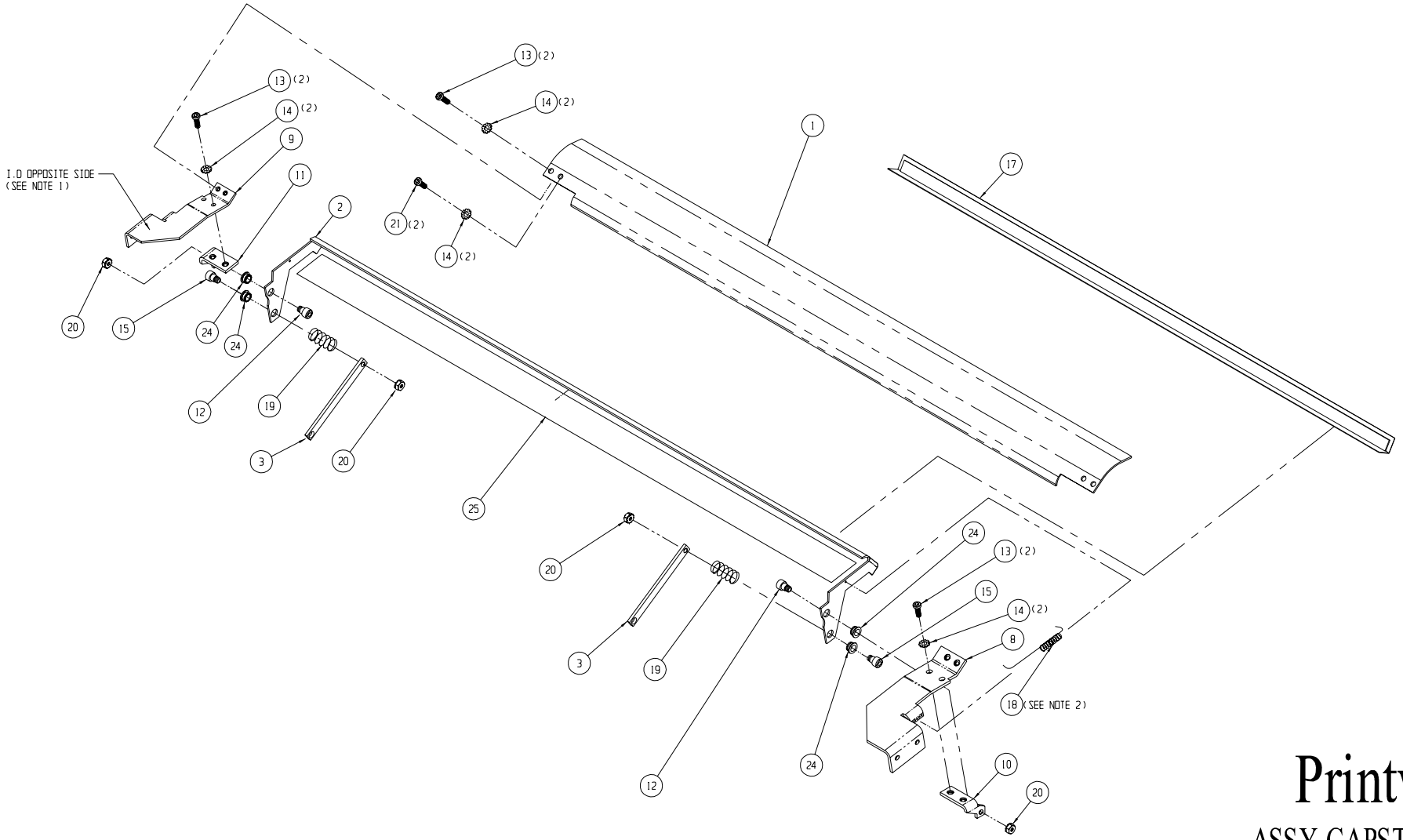
Assembly Number: 808152-001

ASSY-CAPSTAN GUIDE

Revision: B

Find Number	Quantity Used	Component Number	Component Description
001	1	806320-001	GUIDE-STATIONARY CAPSTAN
002	1	806323-001	APERTURE-CAPSTAN
003	2	806324-001	LINK-CAPSTAN
008	1	806325-001	BRACKET-CAPSTAN SHUTTER
008	1	806411-001	BRACKET-CAPSTAN GUIDE
009	1	806325-002	BRACKET-CAPSTAN SHUTTER
009	1	806411-002	BRACKET-CAPSTAN GUIDE
010	1	806317-001	BRACKET-CAPSTAN GUIDE
010	1	806412-001	BRACKET-CAPSTAN SHUTTER
011	1	806317-002	BRACKET-CAPSTAN GUIDE
011	1	806412-002	BRACKET-CAPSTAN SHUTTER
012	2	900236	SCREW-SOCKET HEAD SHOULDER 8-32 X .188
013	8	900871-001	SCREW-SHC LOW HEAD 6-32 X .38
014	8	900047-002	WASHER-EXTERNAL LOCK #6
015	2	900236-008	SCREW-SOCKET HD SHLD 8-32 X .2505
017	1	806283-001	ASSY-CAPSTAN LIGHT SEAL 18"
018	1	806517-001	SPRING-CAPSTAN GUIDE
018	1	806658-001	SPRING-HOOKED CAPSTAN GUIDE
019	2	900277-026	SPRING-COMPRESSION .250 X.240X.020
020	4	900233-003	NUT-LOCK K #8-32
021	2	900871-007	SCREW-SHC LOW HEAD 6-32 X .250
024	4	900230-005	BEARING-NYLON SNAP-IN .188 SHAFT

PRINTWARE Confidential



Printware

ASSY-CAPSTAN GUIDE

808152-001 REVISION: B

Sheet 1 of 1

PRINTWARE Confidential

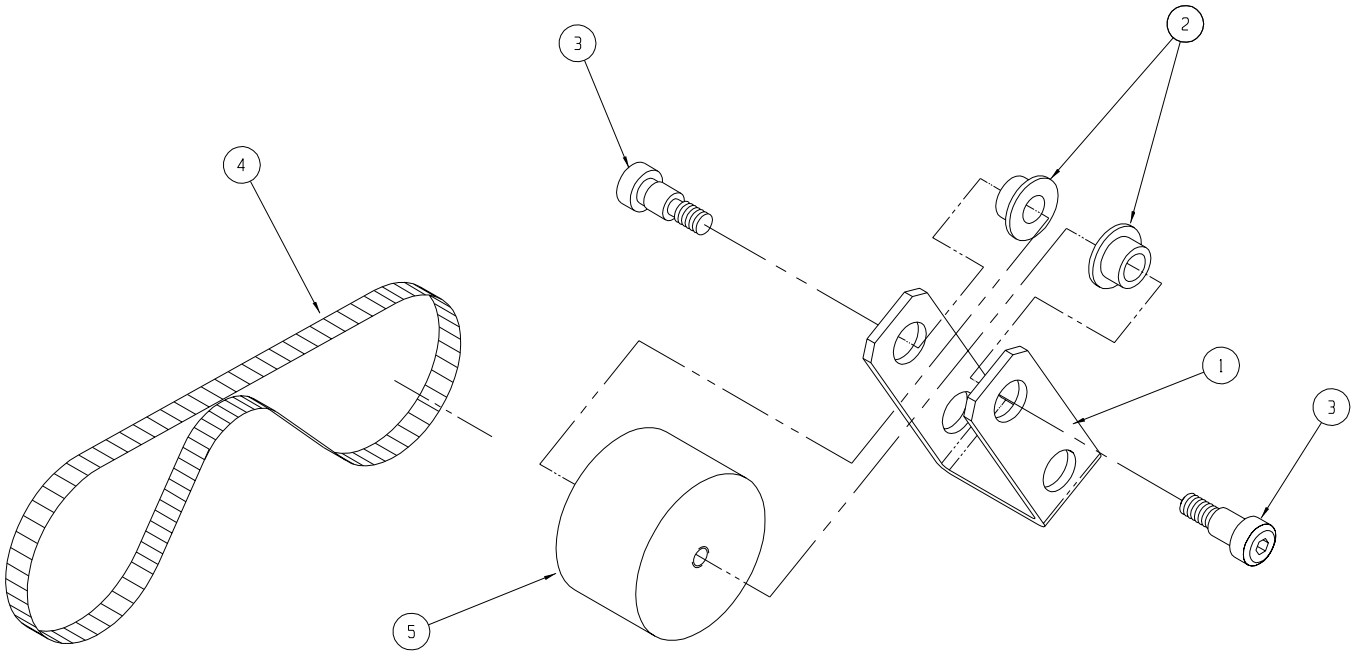
Assembly Number: 807363-001

ASSY-BELT TENSIONER

Revision: D

Find Number	Quantity Used	Component Number	Component Description
001	1	807358-001	BRACKET-BELT TENSIONER
001	1	808238-001	BRACKET-BELT TENSIONER
002	2	900406-002	BEARING OIL LESS BRONZE
003	2	900236-021	SCREW-SOCKET HEAD SHOULDER 10-32 X .312
004	1	901187-002	BELT-TIMING DOUBLE SIDED
005	1	807433-001	PULLEY-IDLER

PRINTWARE Confidential



Printware

ASSY-BELT TENSIONER

807363-001 REVISION: D

Sheet 1 of 1

PRINTWARE Confidential

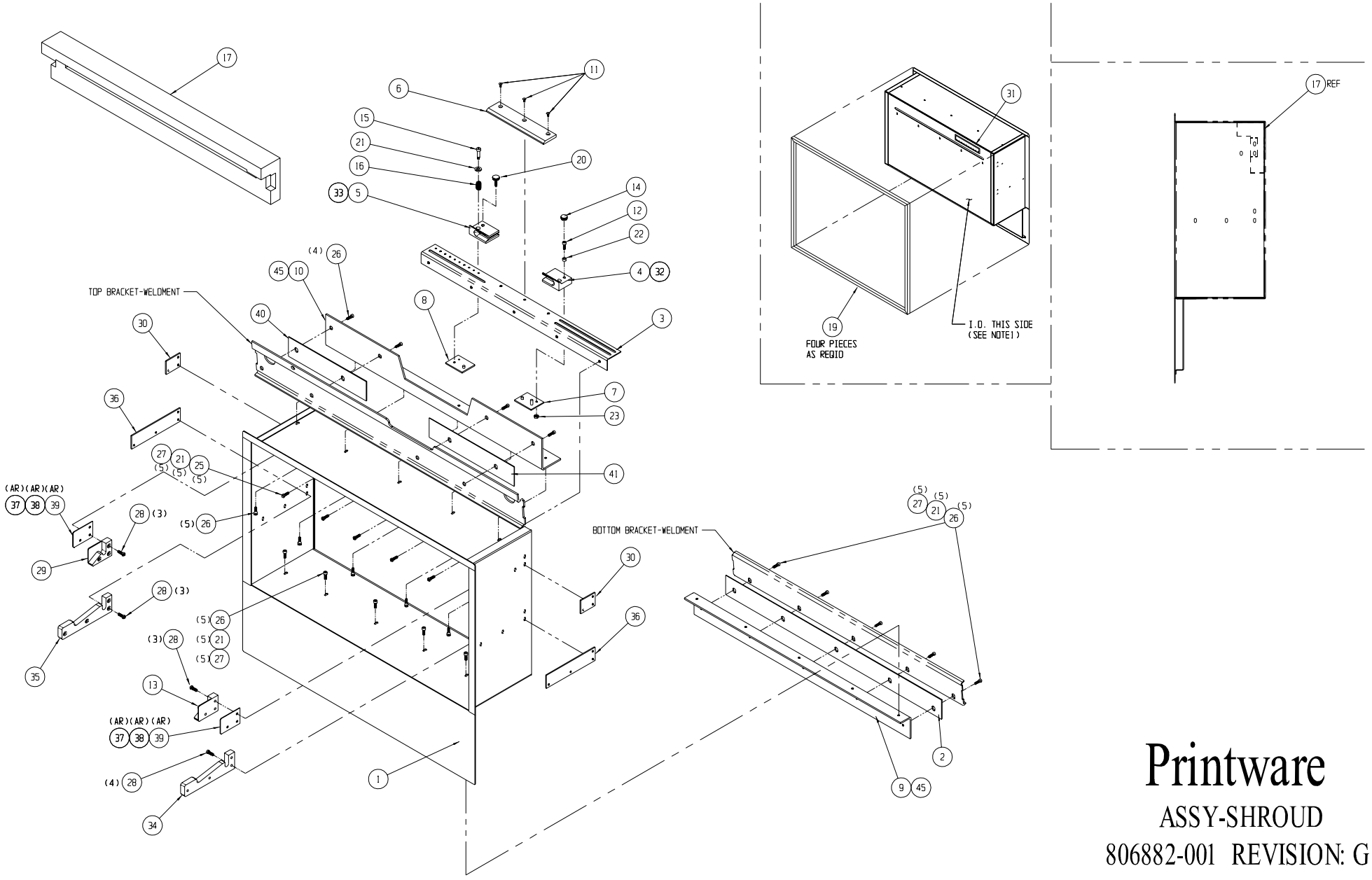
Assembly Number: 806882-001

ASSY-SHROUD

Revision: G

Find Number	Quantity Used	Component Number	Component Description
001	1	806884-001	SHROUD
002	2	806883-001	STRIP-NOISE SUPPRESSION
003	1	806353-001	BRACKET-INPUT MEDIA ALIGNMENT
004	1	807215-002	BLOCK-EDGE GUIDE ADJUSTABLE
005	1	807216-002	BLOCK-EDGE GUIDE POSITIONING
006	1	806355-001	BRIDGE-INPUT
007	1	806352-002	PLATE-ADJUST
008	1	806354-002	PLATE-POSITIONING BLOCK BACKUP
009	1	806877-001	BRACKET-MOUNT LOWER
010	1	806947-001	BRACKET-TOP
011	3	900237-000	SCREW-SOCKET FLAT HEAD UNC 6-32 X 3/8
012	1	900235-041	SCREW-SHC 8-32 X 1 1/4
013	1	807191-001	BLOCK-LOCATING UPPER FRONT
014	1	900566-003	KNOB-KNURLED SHC #8
015	1	900236-005	SCREW-SOCKET HEAD SHOULDER 8-32 X .6255
016	1	900277-004	SPRING-COMPRESSION .750X.360X.042
017	1	807513-001	FOAM-LIGHT BAFFLE
019	8	900774-005	SEAL-EMI C FOLD ASTRAGAL
020	1	900963-002	PLUNGER-SPRING LOADED
021	25	900160-012	WASHER-FLAT STEEL #8 NARROW
022	1	900039-001	SPACER .171 ID, .25 OD, .25 HT
023	1	900336-001	NUT-SELF LOCKING HEX 8-32
025	5	900445-006	SCREW-B.H. TORX 8-32 UNC X .375
026	20	900445-007	SCREW-B.H. TORX 8-32 UNC X .500
027	34	900047-000	WASHER-EXTERNAL LOCK #8
028	7	900445-008	SCREW-B.H. TORX 8-32 UNC X .625
029	1	807191-002	BLOCK-LOCATING UPPER REAR
030	2	806321-001	PLATE-BLOCK-LOCATING
031	1	807093-006	LABEL-PLATE GUIDE POSITION
032	1	807093-003	LABEL-PLATE GUIDE POSITION EDGE GUIDE
033	1	807093-004	LABEL-PLATE GUIDE POSITION EDGE GUIDE
034	1	807365-002	RECEPTACLE-CASSETTE FRONT
035	1	807365-001	RECEPTACLE-CASSETTE REAR
036	2	806930-001	PLATE-BLOCK LOWER LOCATING
037	1	807193-001	SPACER-LOCATING BLOCK UPPER
038	1	807193-003	SPACER-LOCATING BLOCK .020
039	1	807193-004	SPACER-LOCATING BLOCK .015
040	1	806883-002	STRIP-NOISE SUPPRESSION
041	1	806883-003	STRIP-NOISE SUPPRESSION

PRINTWARE Confidential



PRINTWARE Confidential

Printware

ASSY-SHROUD

806882-001 REVISION: G

Sheet 1 of 1

Assembly Number: 808155-001

ASSY-PROCESSOR PLATESTREAM 46

Revision: G

Find Number	Quantity Used	Component Number	Component Description
001	1	806743-001	PANEL-SUPPORT RACK
002	1	806713-001	ASSY-CLUTCH SHAFT
003	1	900960-005	BEARING-ROLLER
004	1	806733-001	BRACKET-CLUTCH
005	1	806824-001	BEARING-FLANGE MOD.
006	1	900289-003	BUSHING-GROMMET
007	1	806786-001	ASSY-TEMP PROBE ACTIVATOR
009	2	807497-001	ASSY-LEVEL SENSOR
010	1	806710-001	ASSY-DRIVE SHAFT
011	1	806714-001	ASSY-DRYER DRIVE
012	1	807494-001	SUPPORT-UPPER DUCT
013	1	806724-001	RAIL-RIGHT
014	2	806727-001	GUSSET-RAIL DRIVE
015	1	807495-001	FRAME-DRIVE DRYER
016	2	900289-004	BUSHING-GROMMET
017	1	806792-001	ASSY-CABLE P3 TO J14
018	8	900338-001	MOUNT-TIE ANCHOR NYLON
019	21	900053-002	TIE-NYLON
020	1	806715-001	ASSY-DRAIN
021	3	900302-008	CLAMP-HOSE
022	1	806769-001	SWITCH-WIRE FORM
023	1	600333-001	SWITCH-SNAP LEVER
024	1	806731-001	DUCT-VERTICAL
025	1	807206-001	ASSY-STABILIZER TRANSPORT
025	1	807328-001	ASSY-STABILIZER TRANSPORT
026	1	807205-001	ASSY-ACTIVATOR TRANSPORT
026	1	807327-001	ASSY-ACTIVATOR TRANSPORT
029	1	806701-001	ASSY-ACTIVATOR TANK
030	1	806702-001	ASSY-STABILIZER TANK
031	1	806725-001	RAIL-LEFT
032	6	900338-002	MOUNT-TIE
033	1	806793-001	ASSY-CABLE ACTIVATOR/STABILIZER LEVEL
034	1	806794-001	ASSY-CABLE INTERFACE
035	4	900040-003	CLIP-CORD ADHESIVE
036	1	600330-001	SENSOR-THERMISTOR DISK
037	1	806831-001	SHIM-SUPPORT RACK PROCESSOR
038	1	806704-001	ASSY-HEATER COVER
039	1	806705-001	ASSY-HEATER BLOWER
040	1	806788-001	ASSY-CABLE DRYER TEMPERATURE PROBE
041	1	806789-001	ASSY-CABLE FILM SWITCH
042	1	806790-001	ASSY-CABLE REPLENISHMENT LEVEL
043	1	523150-001	PCA-DIGIPLATE PROCESSOR

PRINTWARE Confidential

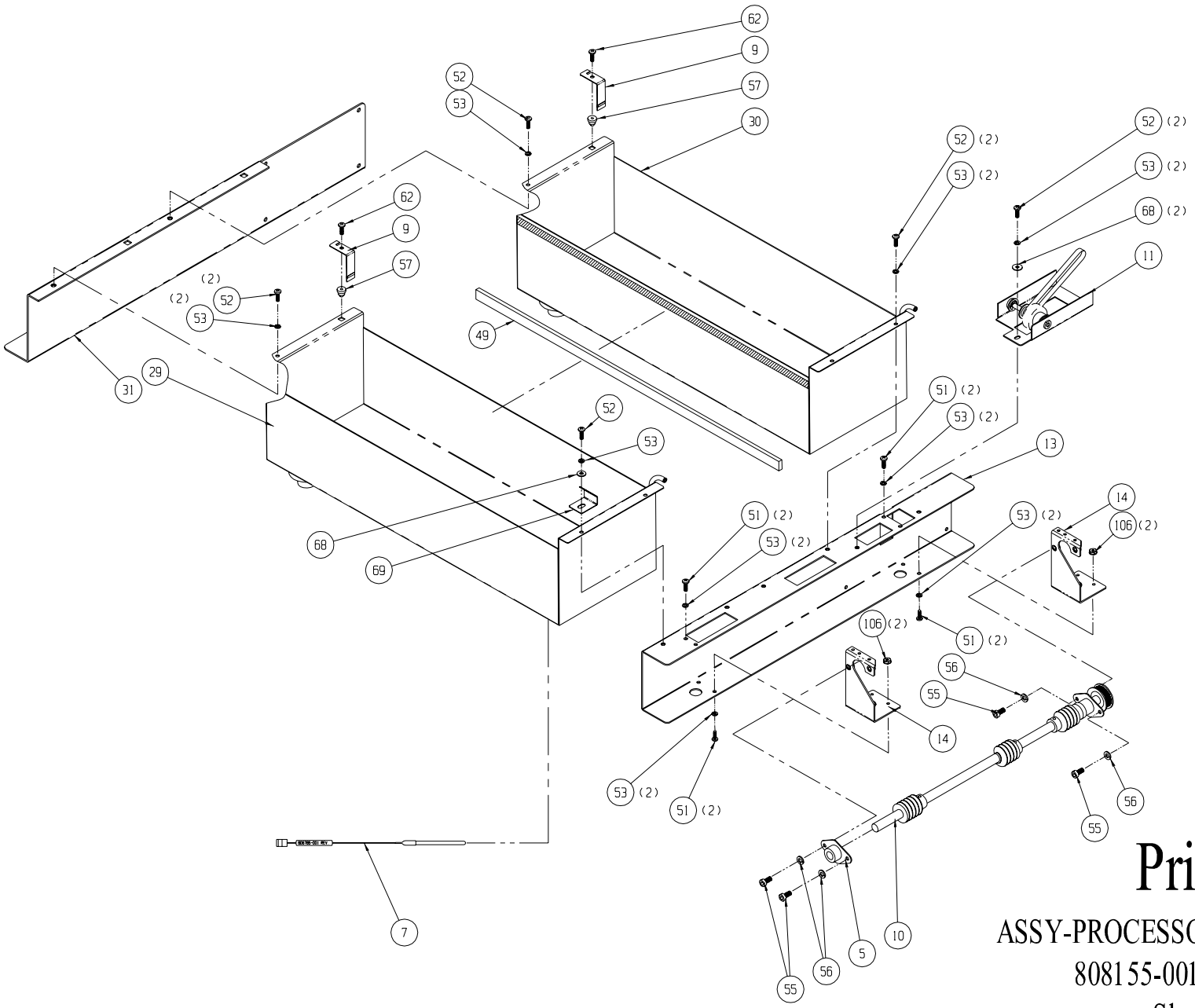
Assembly Number: 808155-001

ASSY-PROCESSOR PLATESTREAM 46

Revision: G

044	1	806708-001	ASSY-ELECTRICAL PANEL
045	1	806703-001	ASSY-DRIVER MOTOR
046	1	900271-003	BELT-TIMING 1/5 PITCH 60 GROVES
047	1	806739-001	PANEL-PCA BOARD
048	8	900967-010	SCREW-STAINLESS 10-24 X .500
050	1	806750-001	BLOCK-SUPPORT SWITCH
051	6	901089-004	SCREW-STAINLESS TAP/FORM 10-32 X .50
052	31	900967-003	SCREW-STAINLESS 10-24 X .375 PILLIPS PAN HEAD
053	39	901072-005	WASHER-SPRING LOCK STAINLESS
054	10	900968-005	NUT-STAINLESS 10-24 LOCKNUT
055	4	900967-006	SCREW-STAINLESS 1/4-20 X .500
056	4	901072-006	WASHER-SPRING LOCK STAINLESS
057	2	901092-001	GROMMET-SCREW
059	2	900967-007	SCREW-STAINLESS 4-40 X .625
060	7	900967-001	SCREW-STAINLESS 8-32 X .375 PHILLIPS PAN HEAD
061	6	901071-010	WASHER-FLT STNLS #8
062	4	900967-005	SCREW-STAINLESS 8-32 X .500 PHILLIPS PAN HEAD
064	6	900968-001	NUT-STAINLESS 8-32 LOCKNUT
065	4	900967-019	SCREW-STAINLESS 10-32 X .5 PHILLIPS PAN HEAD
067	9	901091-001	STANDOFF-TURN
068	8	901071-012	WASHER-FLAT STAINLESS
069	1	807394-001	BRKT-RACK LOCATING
074	1	807313-001	ASSY-AIR HOOD
075	1	808228-001	ASSY-TRNSRT DRYER ROLLER FOAM 15
076	1	806848-001	ASSY-CROSSOVER GUIDE
077	1	806707-003	ASSY-ENTRANCE GUIDE
079	1	806657-002	ASSY-RACK COVER
089	2	806706-004	ASSY-TUBE OVERFLOW
102	1	806410-002	BRACKET-PROCESSOR HEATER HEIGHT
103	1	806410-001	BRACKET-PROCESSOR HEATER HEIGHT
105	6	901100-002	TUBING-POLYVINYL CHLORIDE 1 1/4 X 1
106	2	807487-001	BRKT-COVER ADJUST
107	4	901072-004	WASHER-SPRING LOCK STAINLESS #8

PRINTWARE Confidential



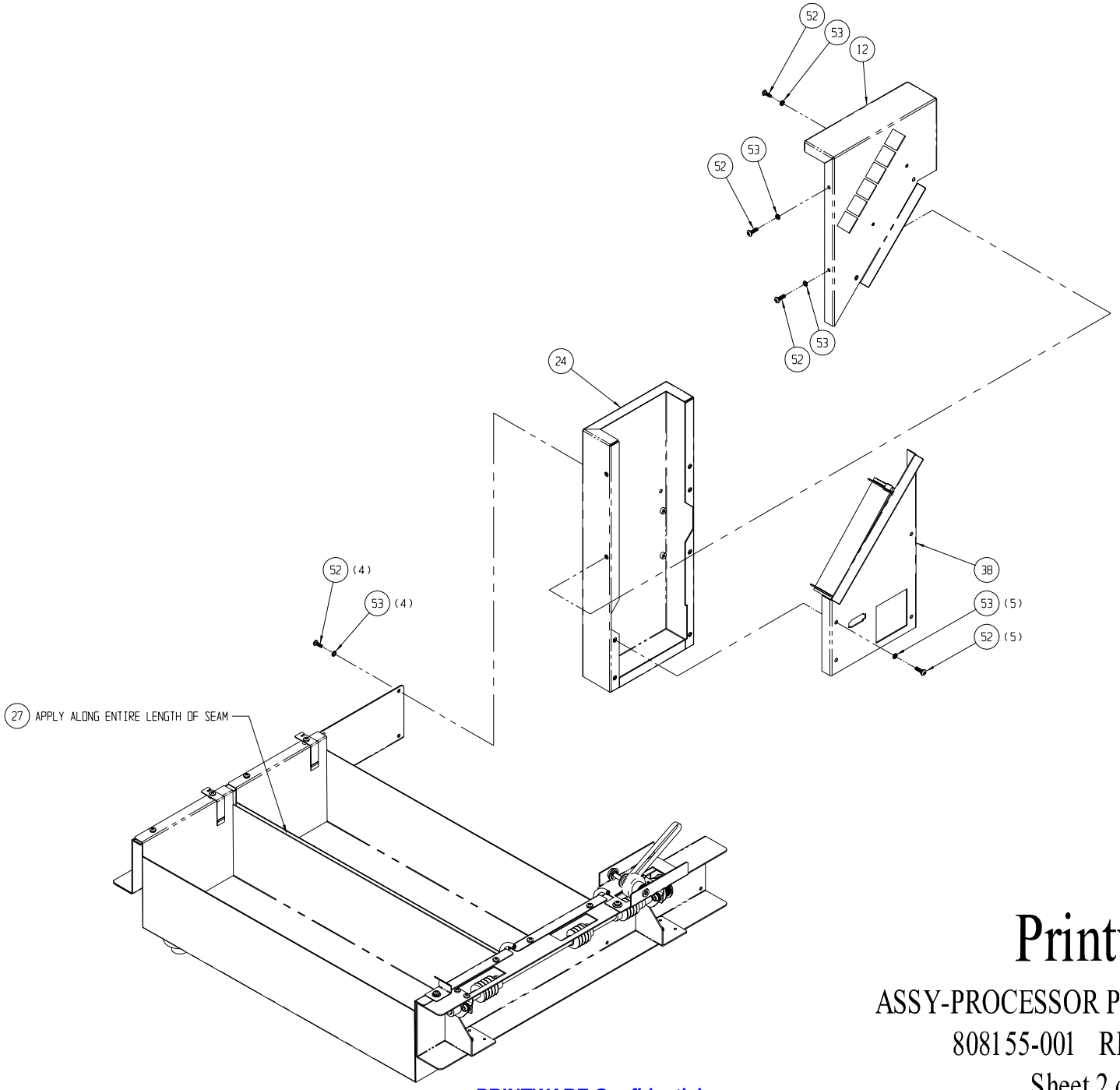
Printware

ASSY-PROCESSOR PLATESTREAM 46

808155-001 REVISION: E

Sheet 1 of 5

PRINTWARE Confidential



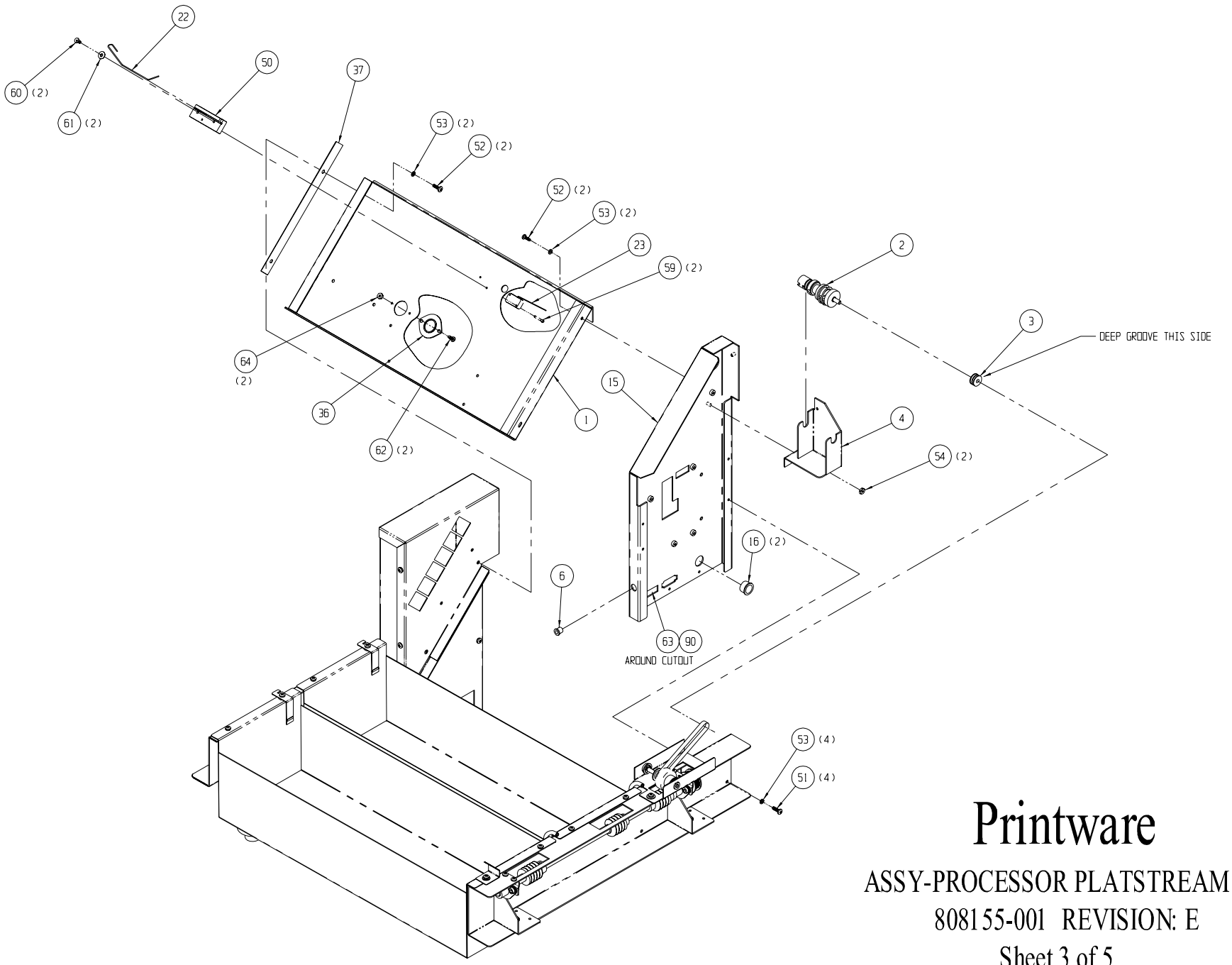
Printware

ASSY-PROCESSOR PLATESTREAM 46

808155-001 REVISION: E

Sheet 2 of 5

PRINTWARE Confidential



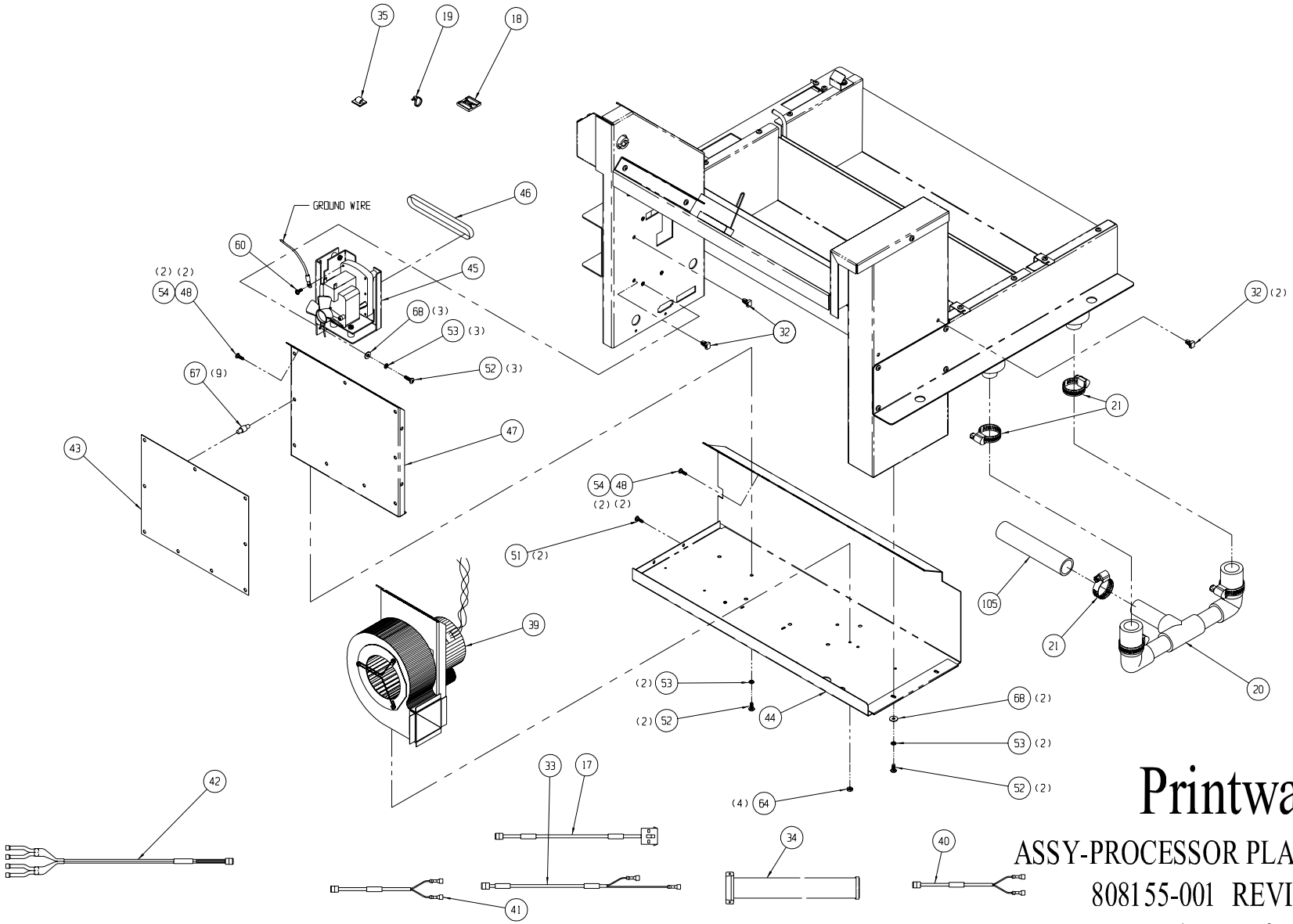
Printware

ASSY-PROCESSOR PLATSTREAM 46

808155-001 REVISION: E

Sheet 3 of 5

PRINTWARE Confidential



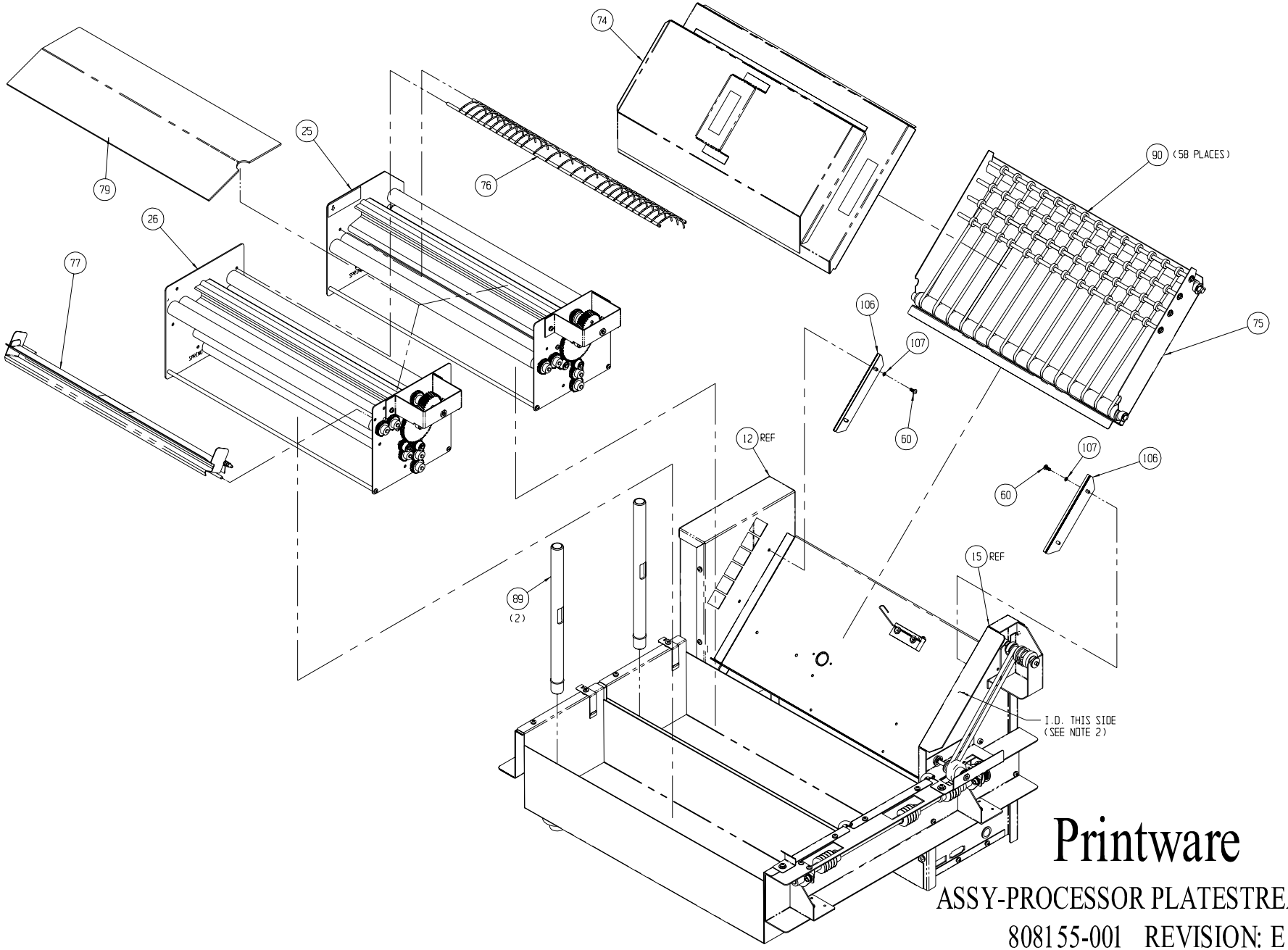
Printware

ASSY-PROCESSOR PLATESTREAM 46

808155-001 REVISION: E

Sheet 4 of 5

PRINTWARE Confidential



Printware

ASSY-PROCESSOR PLATESTREAM 46

808155-001 REVISION: E

Sheet 5 of 5

PRINTWARE Confidential

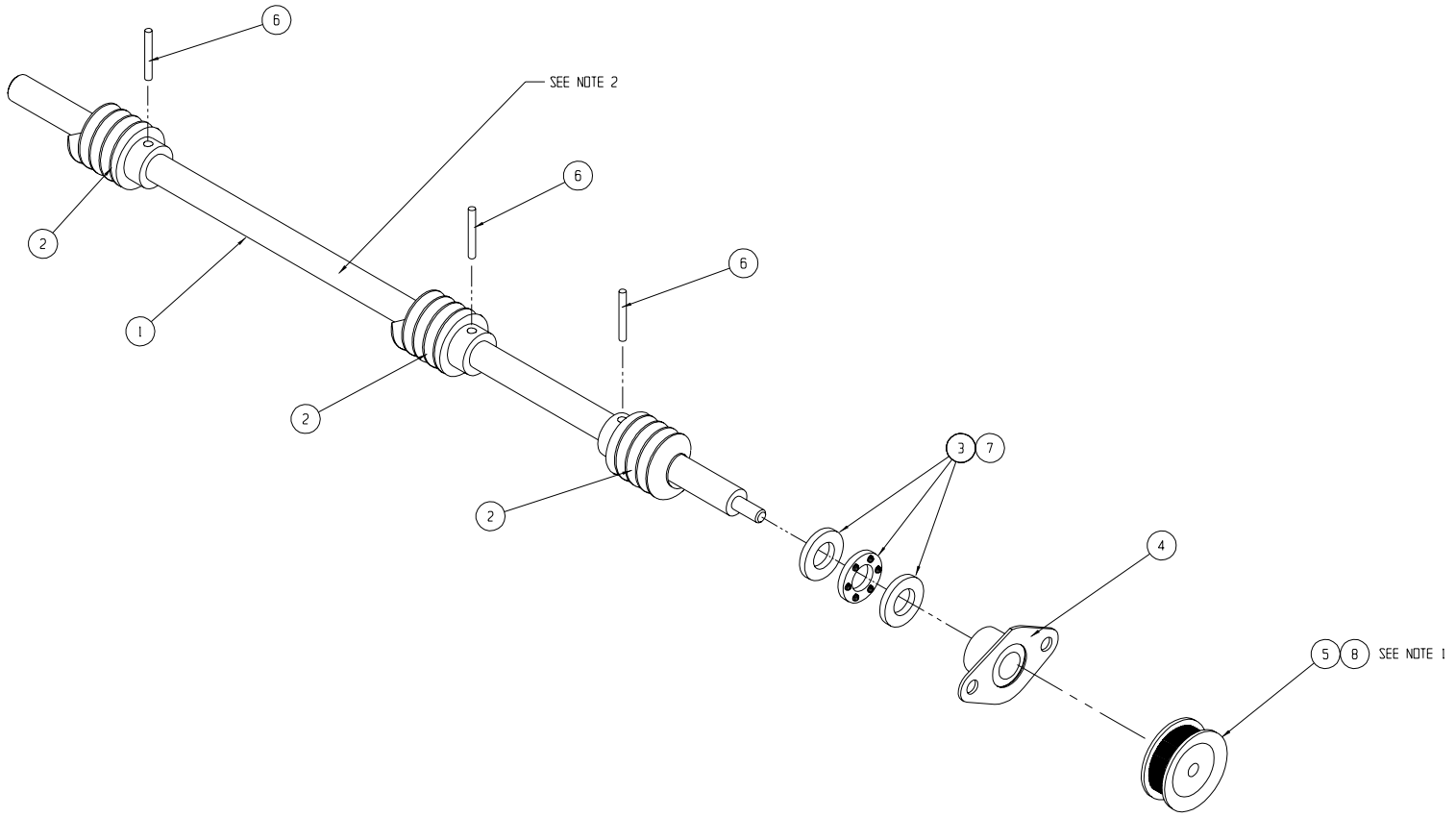
Assembly Number: 806710-001

ASSY-DRIVE SHAFT

Revision: E

Find Number	Quantity Used	Component Number	Component Description
001	1	806775-001	SHAFT-DRIVE
002	3	900960-019	GEAR-WORM
003	1	901090-001	BEARING-THRUST
004	1	806824-001	BEARING-FLANGE MOD.
005	1	900268-005	PULLEY-TIMING BELT 1/5 PITCH
006	3	901079-001	PIN-SPIRAL

PRINTWARE Confidential



Printware

ASSY-DRIVE SHAFT

806710-001 REVISION: E

Sheet 1 of 1

PRINTWARE Confidential

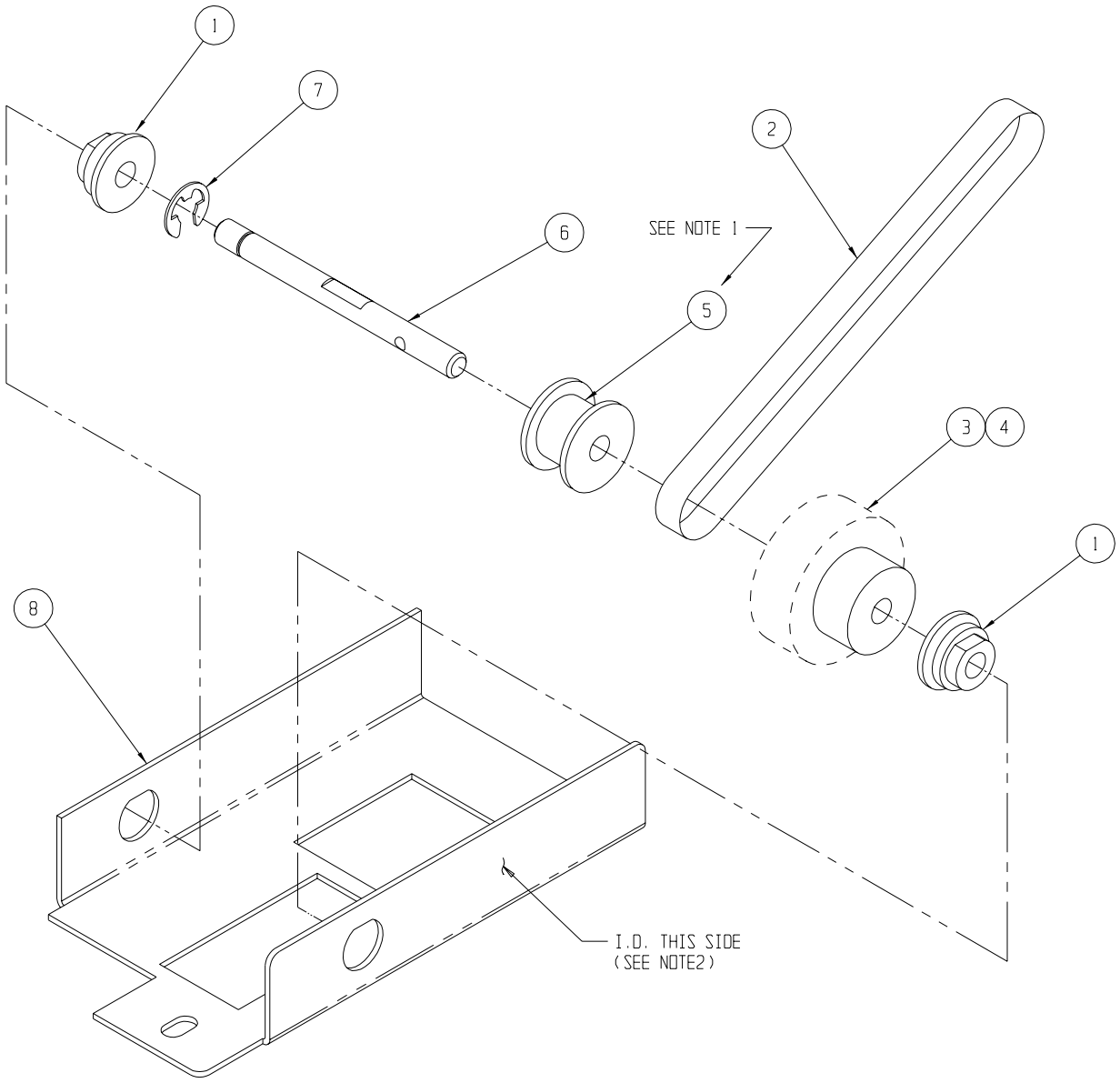
Assembly Number: 806714-001

ASSY-DRYER DRIVE

Revision: F

Find Number	Quantity Used	Component Number	Component Description
001	2	900960-004	BEARING-ROLLER
002	1	900271-004	BELT-TIMING 1/5 PITCH 100 GROOVES
003	1	900960-002	GEAR-WORM SINGLE
004	1	900582-007	PIN-DOWEL SST .125O DIA X .625 LONG
005	1	900268-008	PULLEY-TIMING BELT 1/5 PITCH
006	1	806770-001	SHAFT-DRIVE BELT
007	1	900229-017	E-RING SAE .25 SHAFT
008	1	806729-001	CHANNEL-DRIVE DRYER

PRINTWARE Confidential



Printware

ASSY-DRYER DRIVE

806714-001 REVISION: F

Sheet 1 of 1

PRINTWARE Confidential

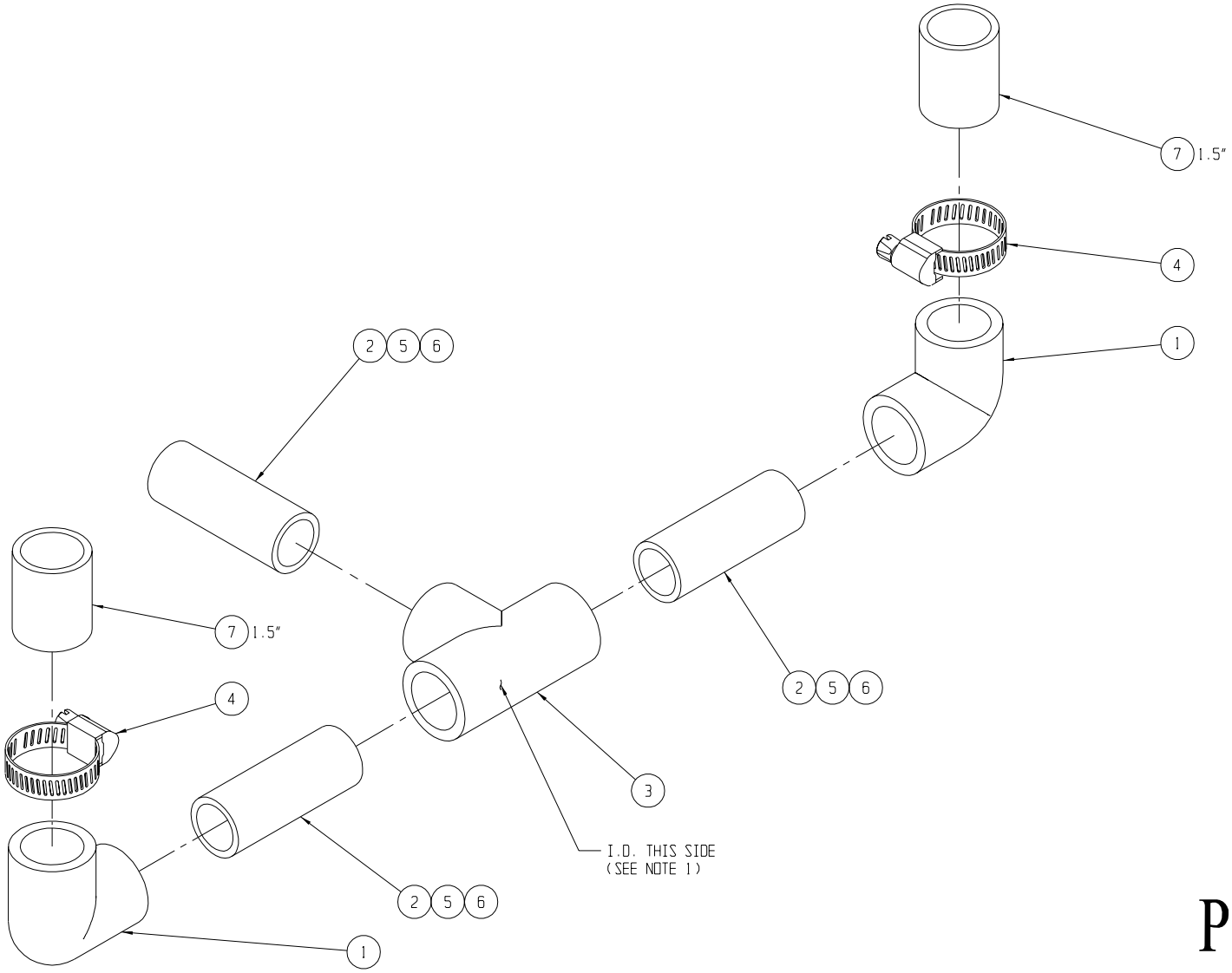
Assembly Number: 806715-001

ASSY-DRAIN

Revision: E

Find Number	Quantity Used	Component Number	Component Description
001	2	900960-052	ELBOW-90
001	2	901119-001	FITTING-PVC PIPE ELBOW (90 DEGREE)
002	3	806818-001	PIPE-PVC
003	1	900960-057	TEE
003	1	901119-002	FITTING-PVC PIPE TEE 3/4"
004	2	900302-008	CLAMP-HOSE
007	1	901100-002	TUBING-POLYVINYL CHLORIDE 1 1/4 X 1

PRINTWARE Confidential



Printware

ASSY-DRAIN

806715-001 REVISION: E

Sheet 1 of 1

PRINTWARE Confidential

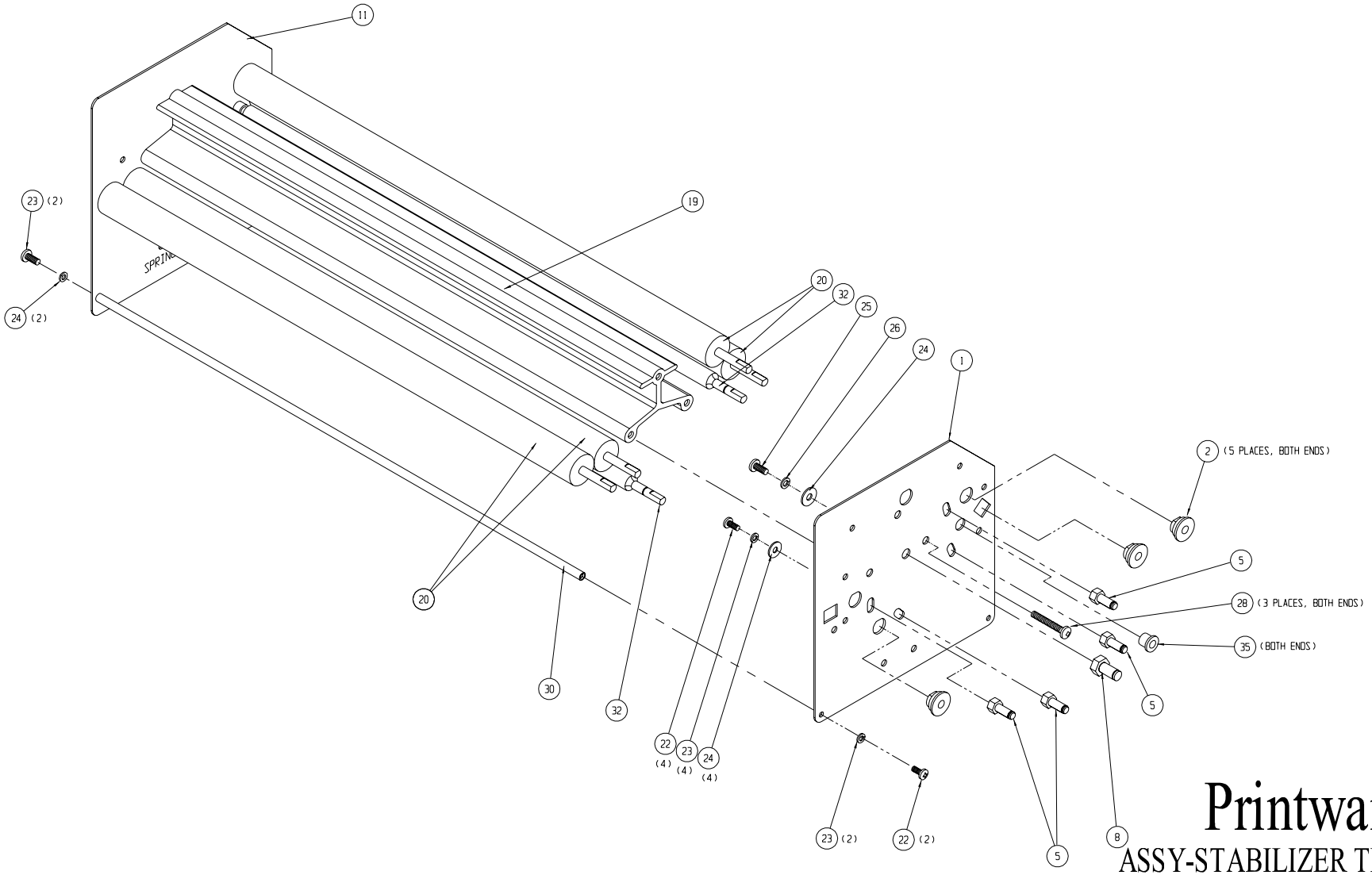
Assembly Number: 807328-001

ASSY-STABILIZER TRANSPORT

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	807331-001	PLATE-STABILIZER FRONT
002	12	900960-004	BEARING-ROLLER
003	5	900960-003	GEAR-ASSY GEAR
005	4	806752-001	SHAFT-IDLER
006	2	900960-001	GEAR-SPUR
007	10	900229-017	E-RING SAE .25 SHAFT
008	1	806776-001	STUD-GEAR
009	1	900960-020	GEAR-SPUR
010	1	900229-018	E-RING SAE .312 SHAFT
011	1	807332-001	PLATE-STABILIZER REAR
012	1	806764-001	BRACKET-DRIVE RACK
013	1	806852-001	ASSY-CLUTCH WORM GEAR
015	1	806821-001	SHAFT-DRIVE RACK
016	1	806837-001	ASSY-STABILIZER ENTRANCE GUIDE
019	1	806760-001	HANDLE-RACK
020	4	806278-001	ROLLER-SQUEEGEE POLISHED
021	1	806836-001	ASSY-PROCESSOR GUIDE
022	8	900967-001	SCREW-STAINLESS 8-32 X .375 PHILLIPS PAN HEAD
023	8	901072-004	WASHER-SPRING LOCK STAINLESS #8
024	5	901071-013	WASHER-FLAT STAINLESS #10
025	3	900967-003	SCREW-STAINLESS 10-24 X .375 PILLIPS PAN HEAD
026	1	901072-005	WASHER-SPRING LOCK STAINLESS
028	6	901089-001	SCREW-STAINLESS TAP/FORM 10-24 X 1
030	2	806822-001	ROD-SUPPORT
031	4	806694-002	SPRING-EXTENSION
032	2	806510-001	ROLLER-PROCESSOR ASSIST
033	2	901070-001	SCREW-SET STAINLESS 8-32 X .250
034	2	806819-001	GEAR-MOD
035	2	900319-004	BEARING-NON METALLIC FLANGED
036	1	807231-007	LABEL-GUIDE/COVER GUIDE F
037	2	806695-001	COLLAR-GEAR
038	2	900773-001	COLLAR-SHAFT
039	2	900968-005	NUT-STAINLESS 10-24 KEPS LOCKNUT
040	15	900215-007	WASHER-NYLON 1/4 X .5OD X .032 THK
041	1	807225-005	LABEL-STAB

PRINTWARE Confidential



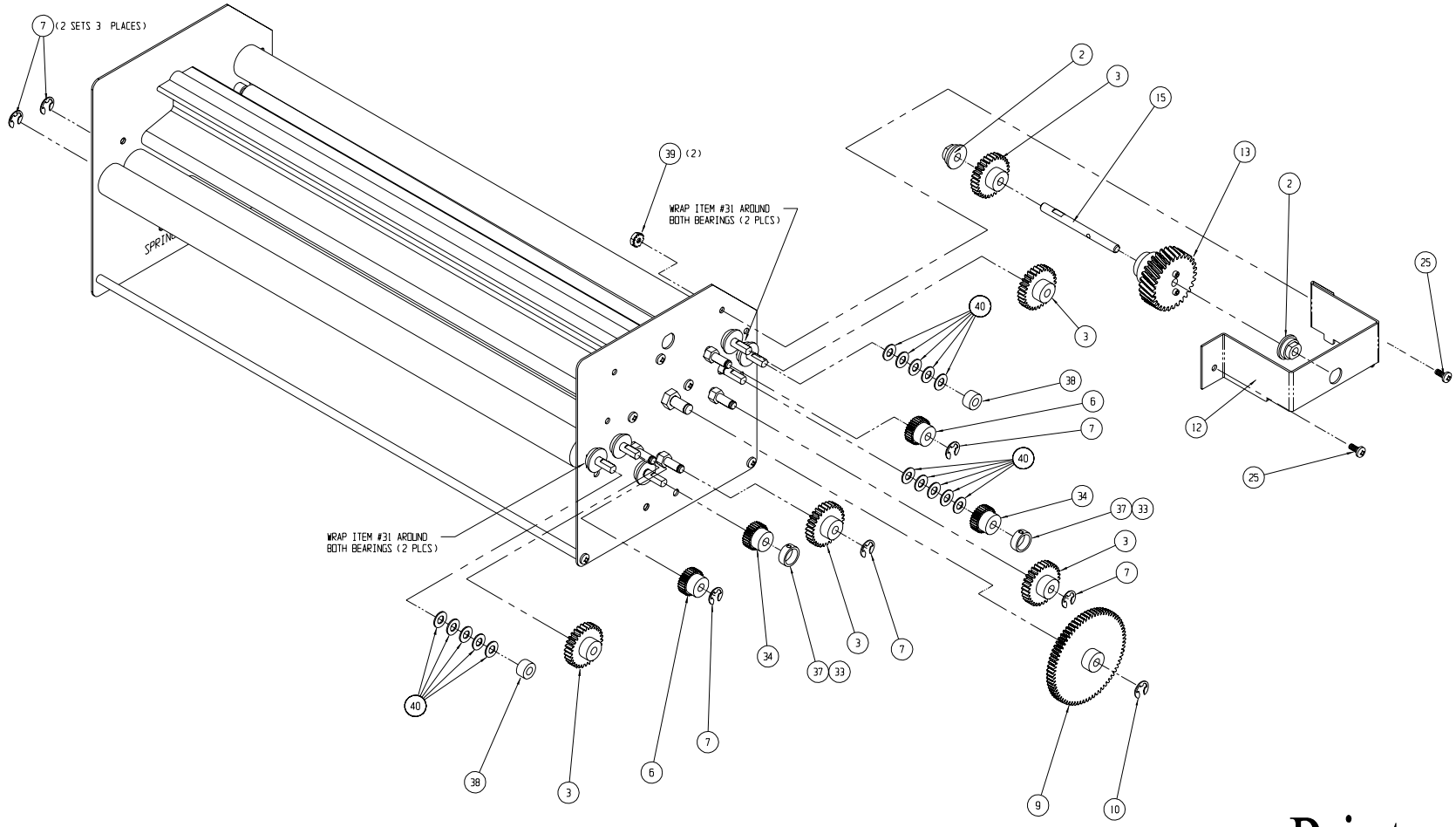
Printware

ASSY-STABILIZER TRANSPORT

807328-001 REVISION: C

Sheet 1 of 3

PRINTWARE Confidential



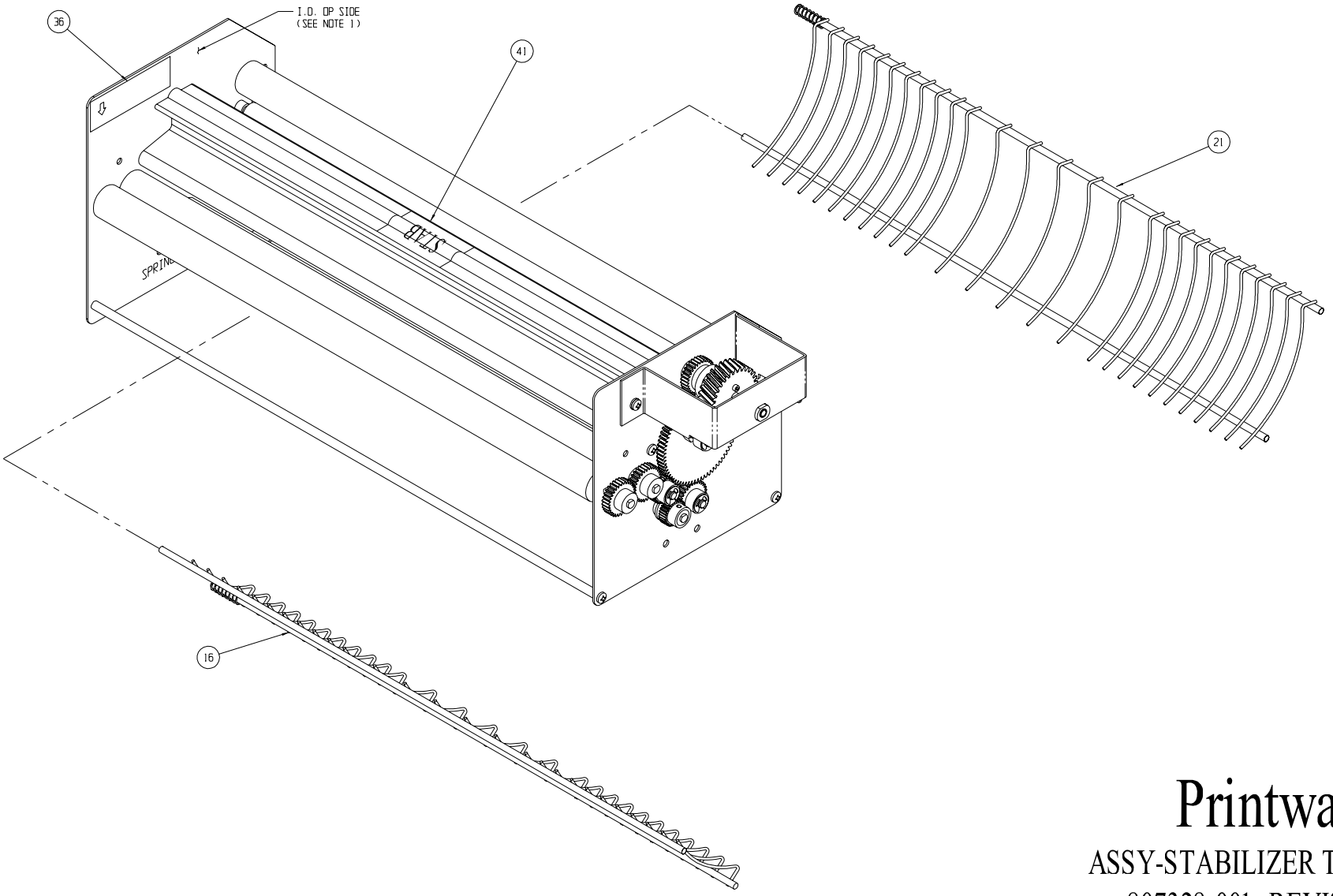
Printware

ASSY-STABILIZER TRANSPORT

807328-001 REVISION: C

Sheet 2 of 3

PRINTWARE Confidential



Printware

ASSY-STABILIZER TRANSPORT

807328-001 REVISION: C

Sheet 3 of 3

PRINTWARE Confidential

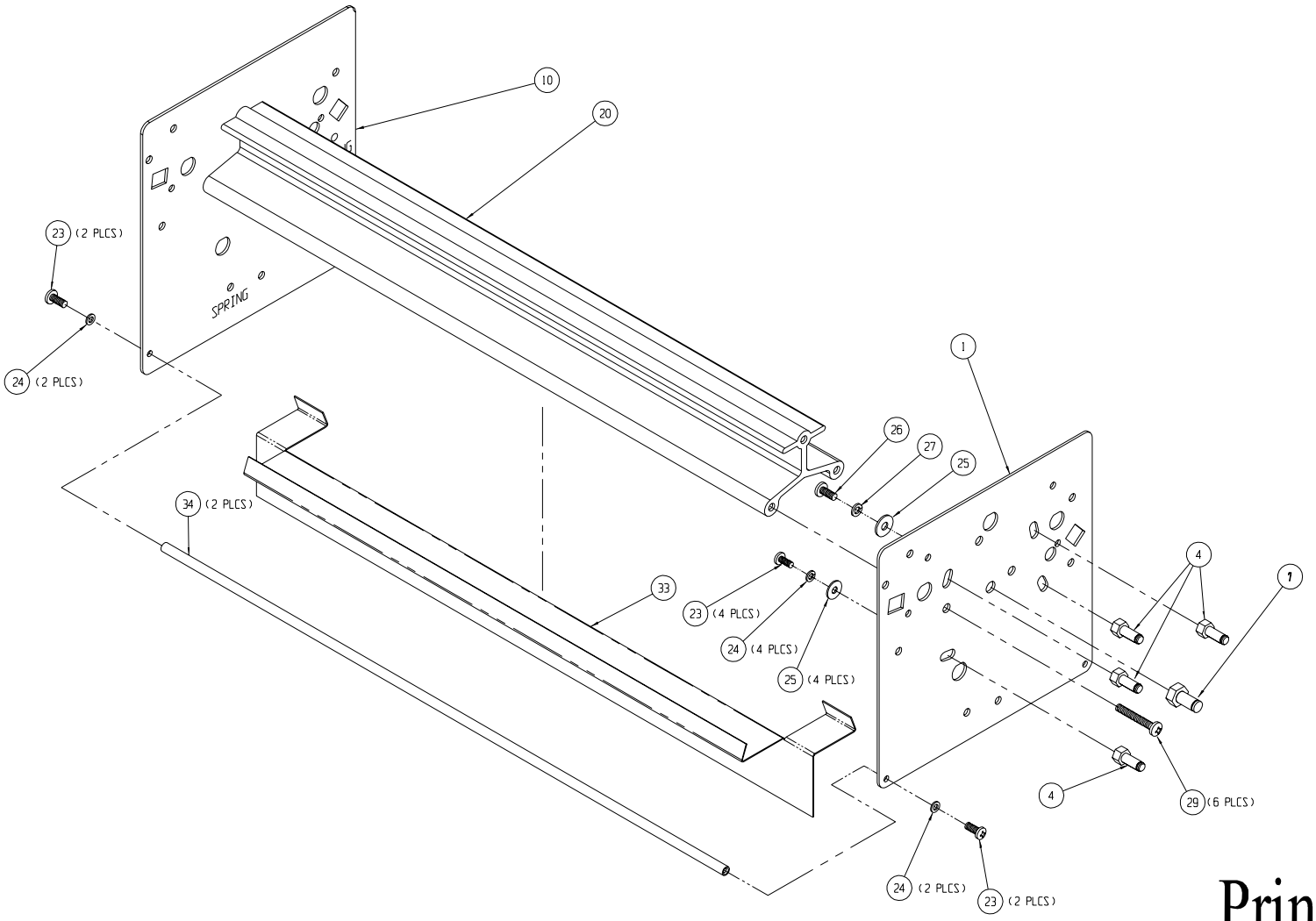
Assembly Number: 807327-001

ASSY-ACTIVATOR TRANSPORT

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	807329-001	PLATE-ACTIVATOR FRONT
002	12	900960-004	BEARING-ROLLER
003	6	900960-003	GEAR-ASSY GEAR
004	4	806752-001	SHAFT-IDLER
005	2	900960-001	GEAR-SPUR
006	10	900229-017	E-RING SAE .25 SHAFT
007	1	806776-001	STUD-GEAR
008	1	900960-020	GEAR-SPUR
009	1	900229-018	E-RING SAE .312 SHAFT
010	1	807330-001	PLATE-ACTIVATOR REAR
011	4	806694-001	SPRING-EXTENSION
012	1	806764-001	BRKT-DRIVE RACK
013	1	806852-001	ASSY-CLUTCH WORM GEAR
015	1	806821-001	SHAFT-DRIVE RACK
016	2	806836-001	ASSY-PROCESSOR GUIDE
020	1	806760-001	HANDLE-RACK
021	2	806762-001	ROLLER-TRANSPORT
022	8	900291-010	O-RING
023	8	900967-001	SCREW-STAINLESS 8-32 X .375 PHILLIPS PAN HEAD
024	8	901072-004	WASHER-SPR LK STNLES #8
025	5	901071-013	WASHER-FLT STNL #10
026	3	900967-003	SCREW-STAINLESS 10-24 X .375 PHILLIPS PAN HEAD
027	1	901072-005	WASHER-SPRING LOCK STAINLESS
029	6	901089-001	SCREW-STNLSS TAP/FORM 10-24 X 1
031	2	806278-001	ROLLER-SQUEEGEE POLISHED
032	2	806510-001	ROLLER-PROCESSOR ASSIST
033	1	806506-001	GUARD-PROCESSOR SPLASH
034	2	806822-001	ROD-SUPPORT
035	2	900319-004	BEARING-NON METALLIC FLANGED
036	2	901070-001	SCREW-SET STAINLESS 8-32 X .250
037	2	806819-001	GEAR-MOD
038	2	806695-001	COLLAR-GEAR
039	1	900773-001	COLLAR-SHAFT
040	2	900968-005	NUT-STAINLESS 10-24 LOCKNUT
041	10	900215-007	WASHER-NYLON 1/4 X .5O
042	1	807225-004	LABEL-ACT

PRINTWARE Confidential

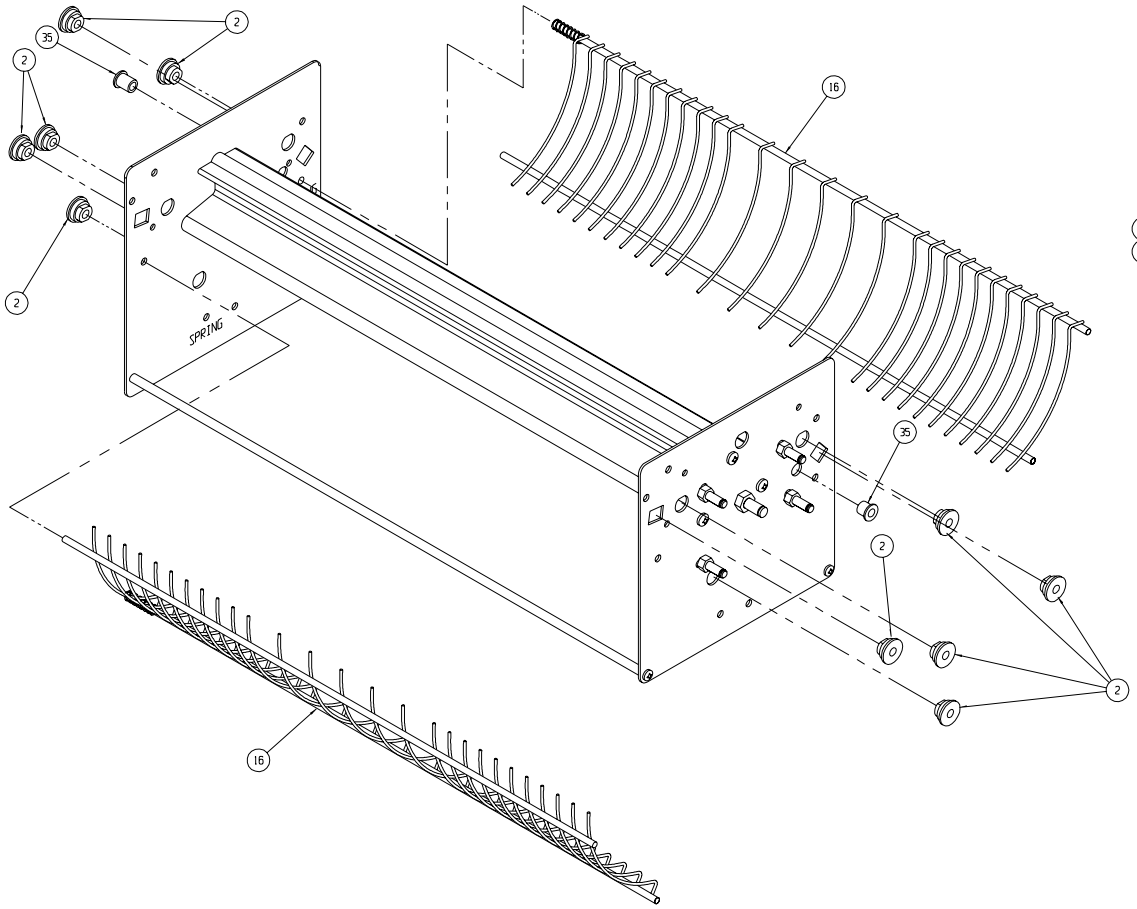


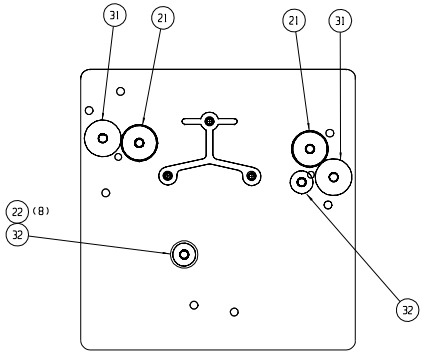
Printware

ASSY-ACTIVATOR TRANSPORT

807327-001 REVISION: C

PRINTWARE Confidential





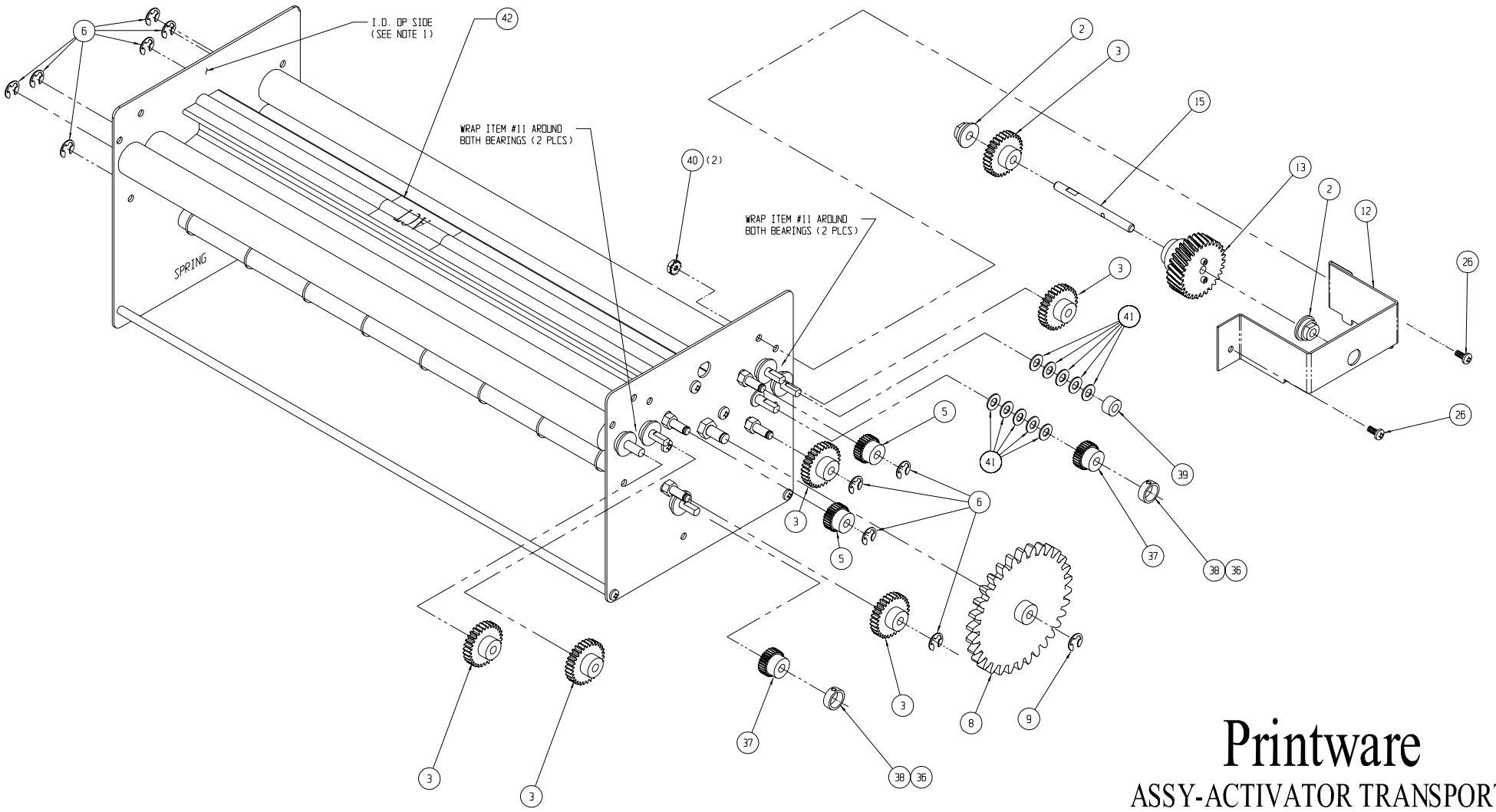
Printware

ASSY-ACTIVATOR TRANSPORT

807327-001 REVISION: C

Sheet 2 of 3

PRINTWARE Confidential



Printware

ASSY-ACTIVATOR TRANSPORT

807327-001 REVISION: C

Sheet 3 of 3

PRINTWARE Confidential

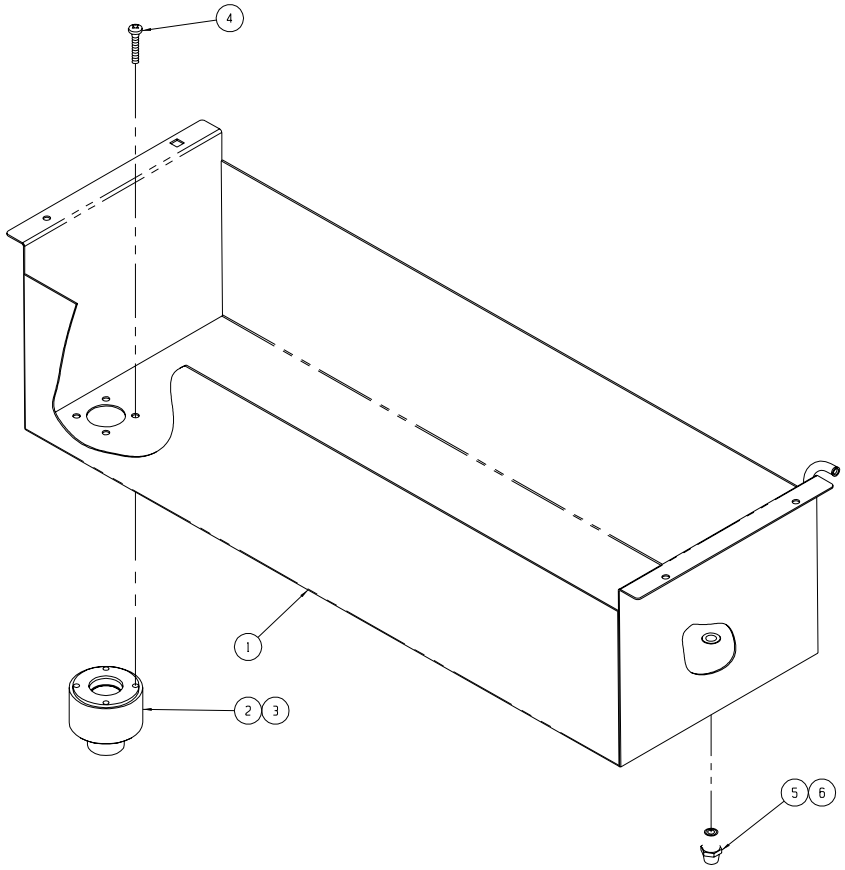
Assembly Number: 806701-001

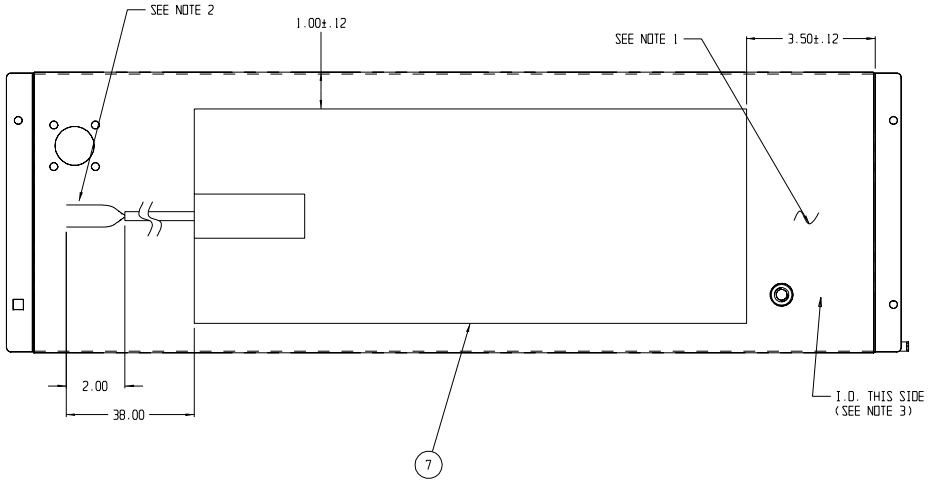
ASSY-ACTIVATOR TANK

Revision: D

Find Number	Quantity Used	Component Number	Component Description
001	1	806735-001	TANK-ACTIVATOR
002	1	806774-001	FITTING-DRAIN
003	1	900291-009	O-RING
004	4	901089-003	SCREW-STAINLESS TAP/FORM 10-24 X .75
005	1	901083-001	FITTING-COMPRESSION
007	1	600335-001	HEATER-BLANKET

PRINTWARE Confidential





Printware

ASSY-ACTIVATOR TANK

806701-001 REVISION: D

Sheet 1 of 1

PRINTWARE Confidential

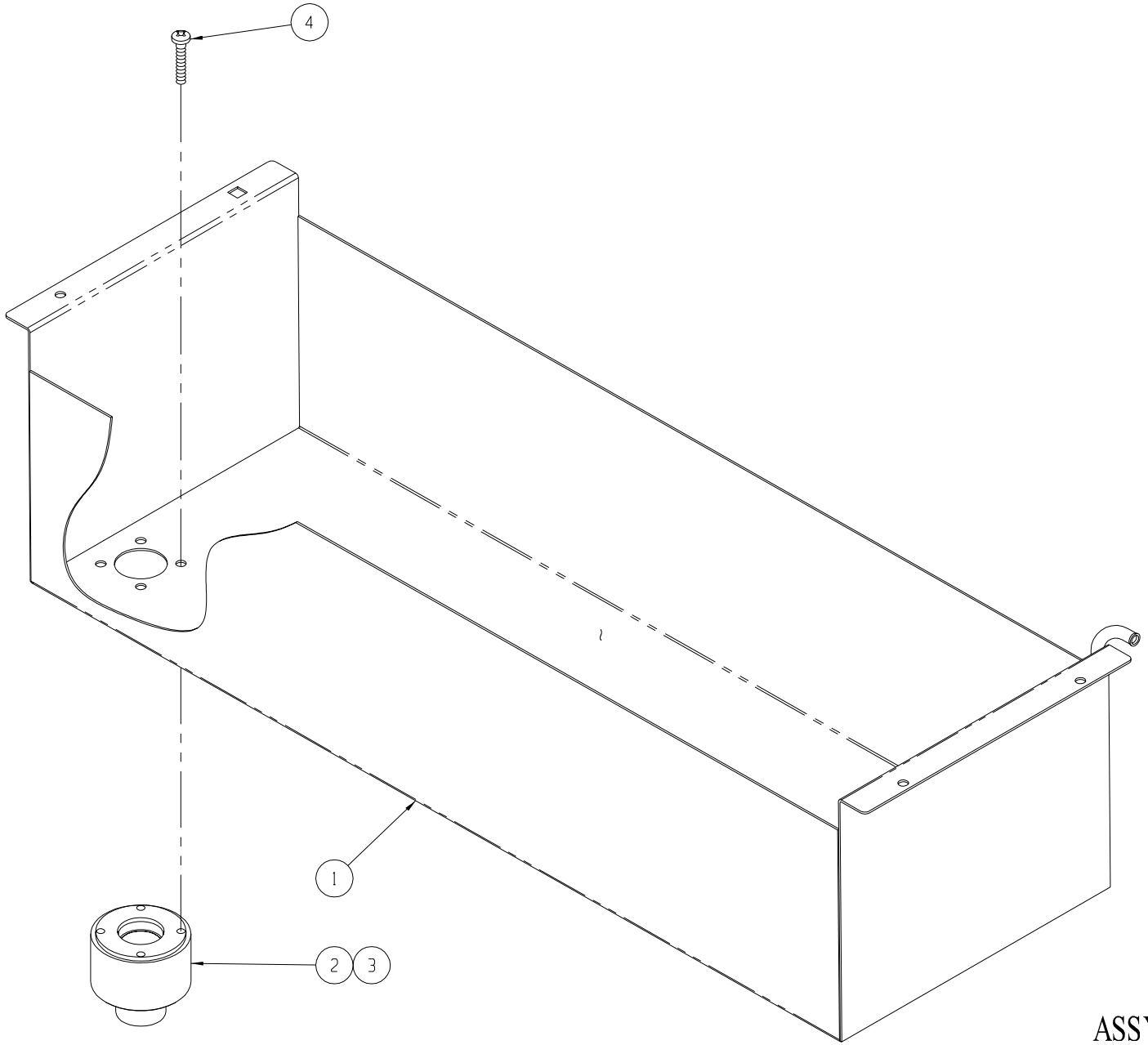
Assembly Number: 806702-001

ASSY-STABILIZER TANK

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	806734-001	TANK-STABILIZER
002	1	806774-001	FITTING-DRAIN
003	1	900291-009	O-RING
004	4	901089-003	SCREW-STAINLESS TAP/FORM 10-24 X .75

PRINTWARE Confidential



Printware

ASSY-STABILIZER TANK

806702-001 REVISION: C

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 806708-001

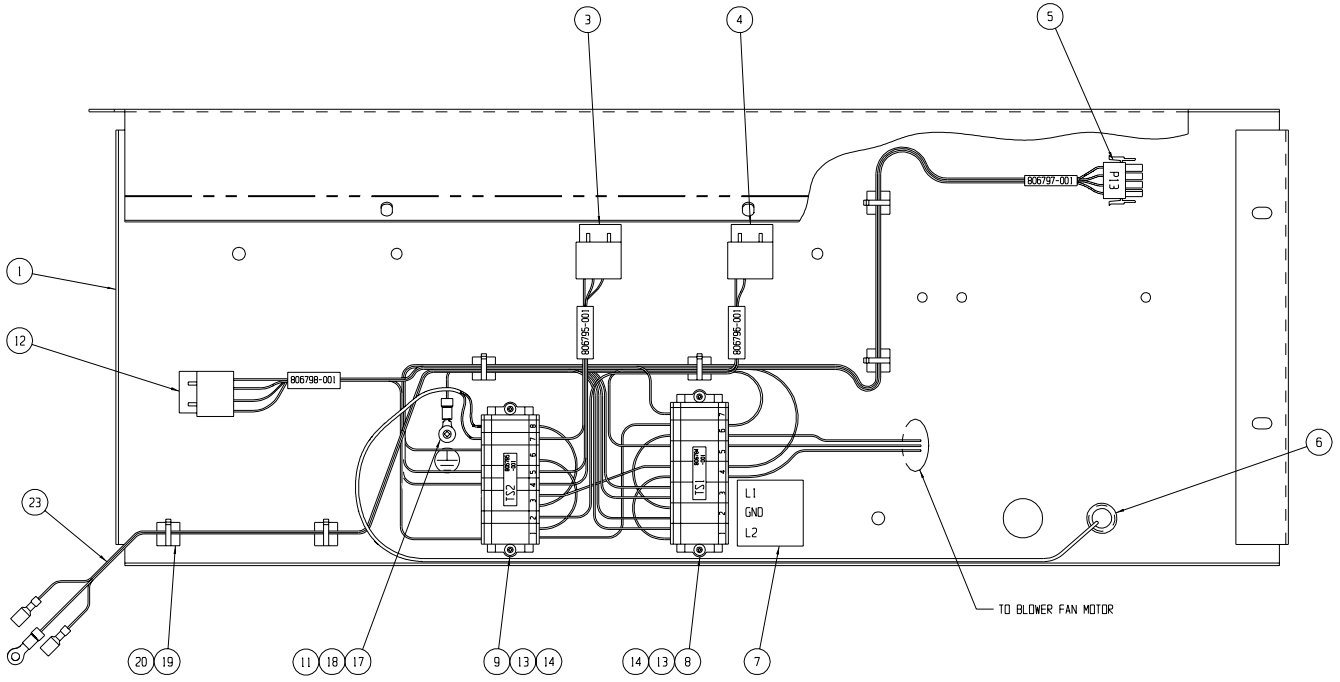
ASSY-ELECTRICAL PANEL

Revision: E

Find Number	Quantity Used	Component Number	Component Description
001	1	806736-001	PANEL-ELECTRICAL LOWER
002	3	900040-003	CLIP-CORD ADHESIVE
003	1	806795-001	ASSY-CABLE HEATER CONTROL
004	1	806796-001	ASSY-CABLE MOTOR CONTROL
005	1	806797-001	ASSY-CABLE DRYER HEATER
006	1	900289-003	BUSHING-GROMMET
007	1	806810-001	LABEL-POWER SUPPLY
008	1	806782-001	ASSY-STRIP TS1
009	1	806783-001	ASSY-STRIP TS2
011	1	806826-001	ASSY-CABLE GROUND
012	1	806798-001	ASSY-CABLE POWER CONTROL
013	4	900967-004	SCREW-STAINLESS 4-40 X .375
014	4	900968-003	NUT-STAINLESS 4-40 X HEX LOCKNUT
017	1	900967-005	SCREW-STAINLESS 8-32 X .5 PHILLIPS PAN HEAD
018	1	901076-003	WASHER-EXT STAINLESS #8
019	8	900338-002	MOUNT-TIE
020	8	900053-002	TIE-NYLON
021	2	806827-001	ASSY-CABLE JUMPER 3.50
022	1	806827-002	ASSY-CABLE JUMPER 4.50
023	1	806830-001	ASSY-CABLE PROCESSOR MOTOR
027	2	806827-003	ASSY-CABLE JUMPER 3.50
028	1	806827-004	ASSY-CABLE JUMPER 3.75

PRINTWARE Confidential

TO	FROM	REFERENCE
TS1-1	P8-1	----
TS1-1	TS1-4	806827-003 (ITEM 27)
TS1-2	GND-1	806826-001 (ITEM 11)
TS1-2	TS1-6	806827-001 (ITEM 21)
TS1-3	P8-3	----
TS1-3	P8-4	----
TS1-4	TS2-3	806827-004 (ITEM 28)
TS1-4	DRIVE MOTOR	806830-001 (ITEM 23)
TS1-4	BLOWER FAN MOTOR	BLACK
TS1-5	P5-1	----
TS1-5	BLOWER FAN MOTOR	BLACK
TS1-6	TS2-1	806827-002 (ITEM 22)
TS1-6	DRIVE MOTOR	806830-001 (ITEM 23)
TS1-6	BLOWER FAN MOTOR	GREEN/YELLOW
TS1-7	DRIVE MOTOR	806830-001 (ITEM 23)
TS2-1	P8-2	----
TS2-1	TS2-6	806827-001 (ITEM 21)
TS2-2	P5-2	----
TS2-3	TS2-8	806827-003 (ITEM 27)
TS2-3	P13-1	----
TS2-4	P13-2	----
TS2-4	P4-2	----
TS2-5	P13-3	----
TS2-5	P4-3	----
TS2-6	P13-4	----
TS2-7	P4-1	----
TS2-7	ACT TANK HEATER	----
TS2-8	ACT TANK HEATER	----



Printware

ASSY-ELECTRICAL PANEL

806708-001 REVISION: E

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 808228-001

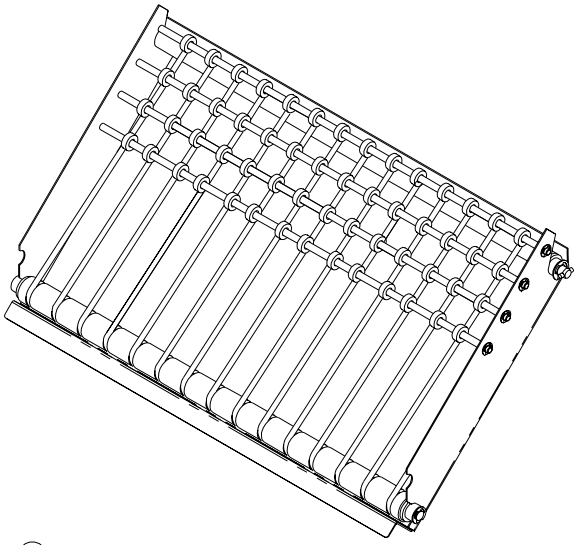
ASSY-TRANSPORT DRYER ROLLER

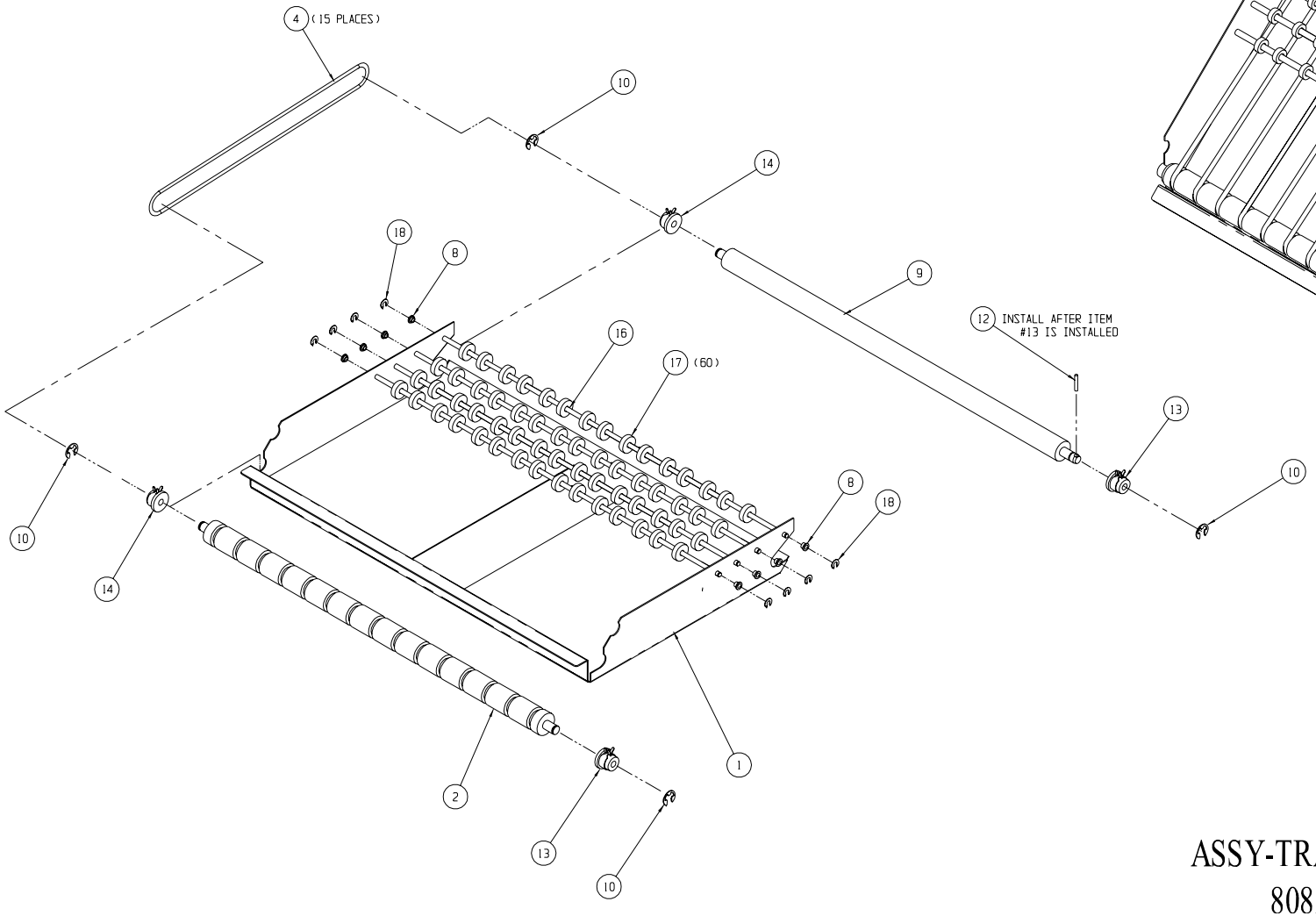
Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	808229-001	RACK-PANEL ROLLER FOAM
002	1	806751-001	ROLLER-DRYER LOWER
004	15	901077-001	BELT-ENDLESS ROUND
008	8	900230-002	BEARING, NYLON SNAP-IN, .25 SHAFT
009	1	806747-001	ROLLER-DRYER UPPER
010	4	900229-019	E-RING SAE .375 SHAFT
012	1	901079-001	PIN-SPIRAL
013	2	806649-001	ASSY-FLANGED BEARING
014	2	806649-002	ASSY-FLANGED BEARING
016	4	807352-001	SHAFT-19.75"
017	60	807351-001	ROLLER-FOAM
018	8	900005-002	RING-GRIP

PRINTWARE Confidential

1. STAMP OR OTHERWISE PERMANENTLY IDENTIFY ASSEMBLY WITH PART#, DASH #, AND CURRENT REV.





Printware

ASSY-TRANSPORT DRYER ROLLER

808228-001 REVISION: C

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 807425-XXX

ASSY-PUNCH PS46 2-HOLE

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	807415-002	ASSY-COMPRESSOR MODIFIED
002	1	901051-005	FITTING-TUBE QUICK STRAIGHT
003	1	901051-004	FITTING-TUBE QUICK STRAIGHT
004	1	901051-007	FITTING-TUBE QUICK ELBOW
005	2	901051-008	FITTING-TUBE QUICK STRAIGHT
006	12	900940-003	TUBING-POLYURETHANE RED
007	3	900940-004	TUBING-POLYURETHANE ORANGE
008	3	900940-005	TUBING-POLYURETHANE GREEN
009	1	901051-009	FITTING-TUBE QUICK BULKHEAD UNION
010	2	901053-001	MUFFLER-PNEUMATIC
011	1	807460-003	ASSY- PUNCH 2 HOLE
012	1	901052-003	SOLENOID-AIR VALVE
013	1	807301-001	ASSY-CABLE SOLENOID
017	1	900235-000	SCREW-SHC 8-32 X .75
020	1	806935-002	BRACKET-PUNCH MOUNTING NON-OPERATOR SIDE
021	1	806957-001	BRACKET-PUNCH MOUNTING-OPERATOR SIDE
022	1	900610-003	V-SEAL BROWN
023	1	808210-001	GUIDE-LOWER PUNCH
024	1	808211-001	GUIDE-UPPER PUNCH
026	1	808230-001	PANEL-I/O PUNCHSTREAM
027	1	807412-001	BRKT-PUNCH PLATE
028	1	808213-001	GUIDE-UPPER CUTTER
029	1	808212-001	GUIDE-LOWER CUTTER
030	1	807091-001	ASSY-SWITCH
031	1	806806-001	ASSY-CROSSOVER GUIDE
037	1	806269-001	PANEL-FLAT SDP 1800
040	2	900651-022	WASHER-FENDER .5 X .189 X .125
041	2	900651-020	WASHER-FENDER .749 X .203 X .156
042	8	900047-000	WASHER-EXTERNAL LOCK #8
043	4	900445-007	SCREW-B.H. TORX 8-32 UNC X .500
045	1	900236-008	SCREW-SOCKET HEAD SHOULDER 8-32 X .2505
046	2	900235-002	SCREW-SHC 8-32 X .50
047	3	900235-040	SCREW-SHC 8-32 X 5/8
048	1	900233-003	NUT-LOCK K #8-32
049	2	900233-003	NUT-LOCK K #8-32
050	2	900235-000	SCREW-SHC 8-32 X .75
051	2	900369-001	CLAMP-FIXED DIA .25"
052	2	900287-029	SCREW-PAN PPH 6-32 X 7/16
053	4	900160-004	WASHER-FLAT STEEL #6
054	2	900005-002	RING-GRIP
055	2	900336-000	NUT-SELF LOCKING HEX 6-32
056	1	806915-002	ASSY-PUNCH CHIP COLLECTOR

PRINTWARE Confidential

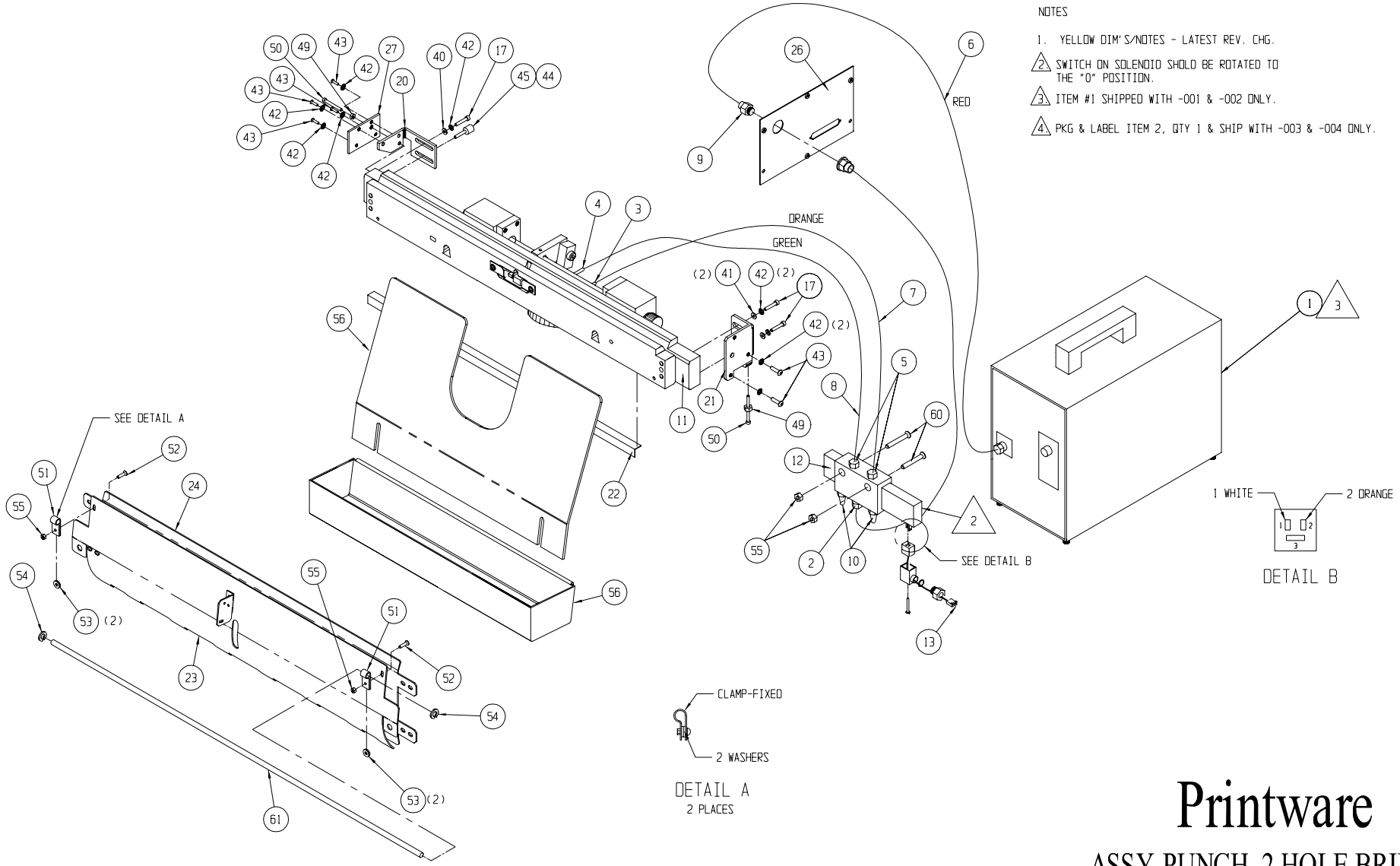
Assembly Number: 807425-XXX

ASSY-PUNCH PS46 2-HOLE

Revision: C

060	2	900287-025	SCREW-PAN PPH 6-32 X 1.25
061	1	807352-002	SHAFT-25"

PRINTWARE Confidential



Printware

ASSY-PUNCH, 2 HOLE BRIDGE

807425-XXX REVISION: G

Sheet 1 of 1

PRINTWARE Confidential

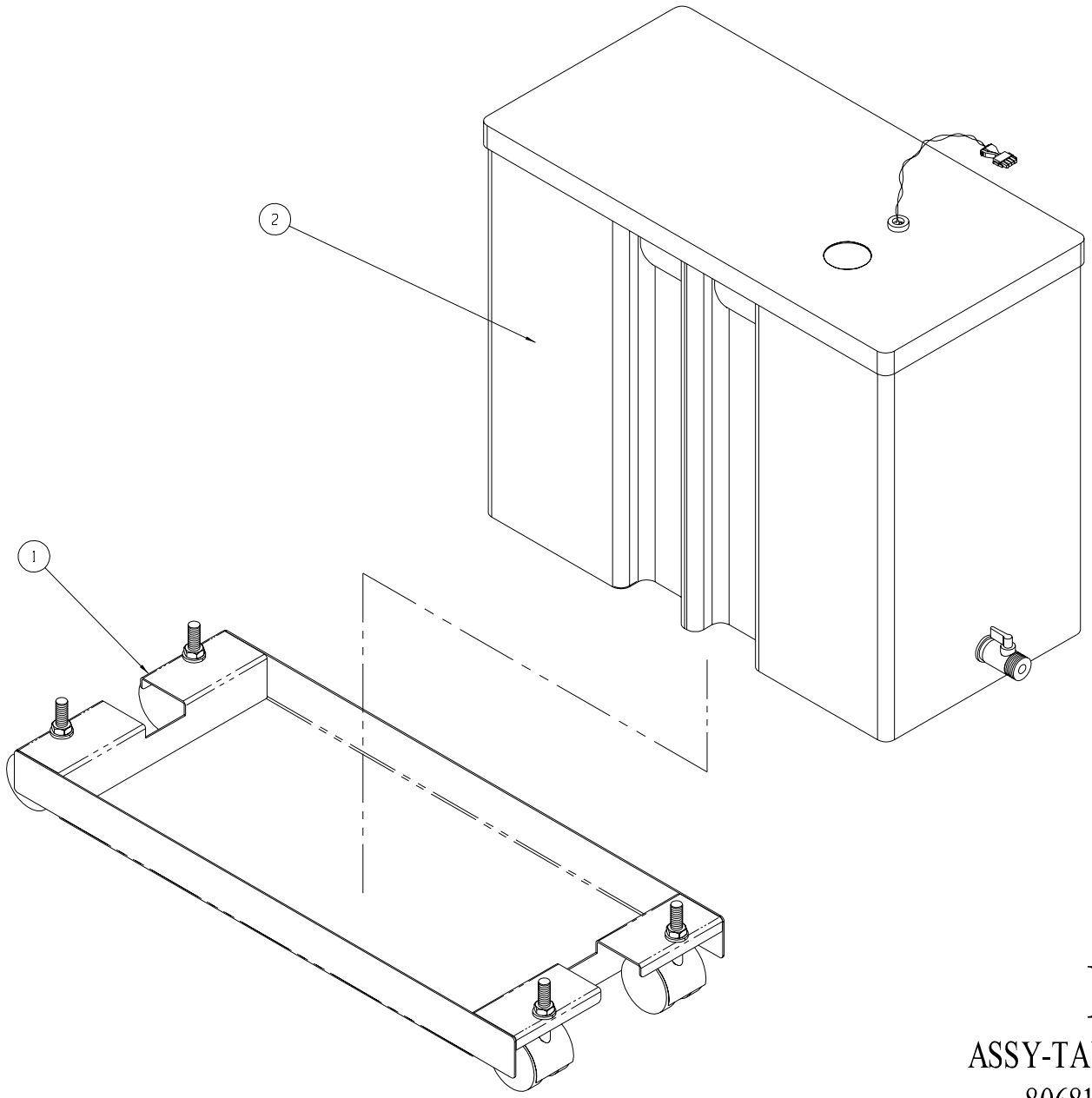
Assembly Number: 806817-001

ASSY-TANK EFFLUENT WITH CART

Revision: E

Find Number	Quantity Used	Component Number	Component Description
001	1	806811-001	ASSY-CART EFFLUENT
001	1	807083-001	ASSY-CART EFFLUENT
002	1	806816-001	ASSY-TANK EFFLUENT

PRINTWARE Confidential



Printware

ASSY-TANK EFFLUENT WITH CART

806817-001 REVISION: D

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 807083-001

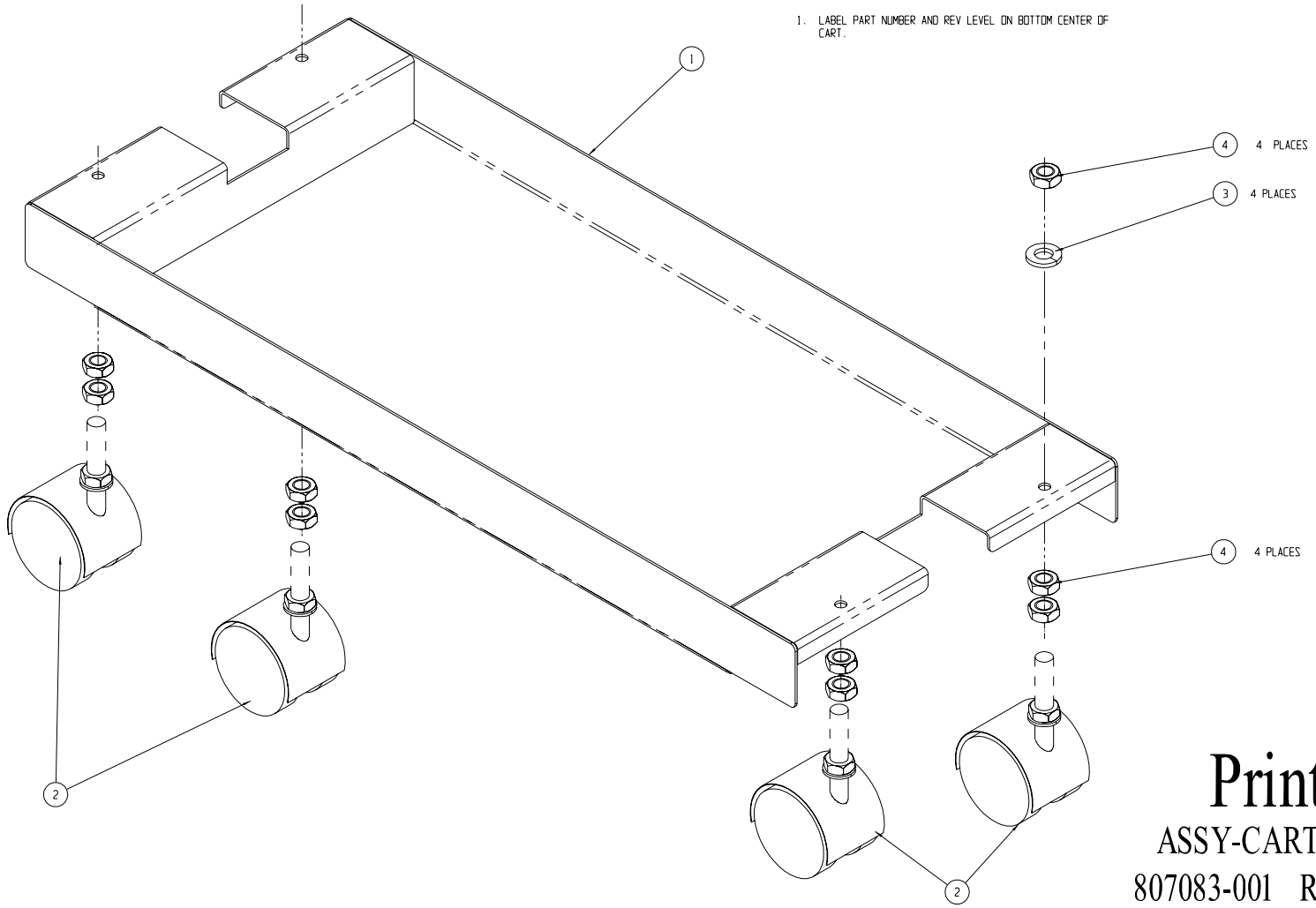
ASSY-CART EFFLUENT

Revision: C

Find Number	Quantity Used	Component Number	Component Description
001	1	807097-001	CART-EFFLUENT
002	4	900832-003	CASTER-TWIN WHEEL W/O BRAKE
003	4	900223-007	WASHER-LOCK HELICAL SPRING 5/16 REG
004	12	900222-003	NUT-HEX UNC 5/16-18

PRINTWARE Confidential

1. LABEL PART NUMBER AND REV LEVEL ON BOTTOM CENTER OF CART.



Printware

ASSY-CART EFFLUENT

807083-001 REVISION: C

Sheet 1 of 1

PRINTWARE Confidential

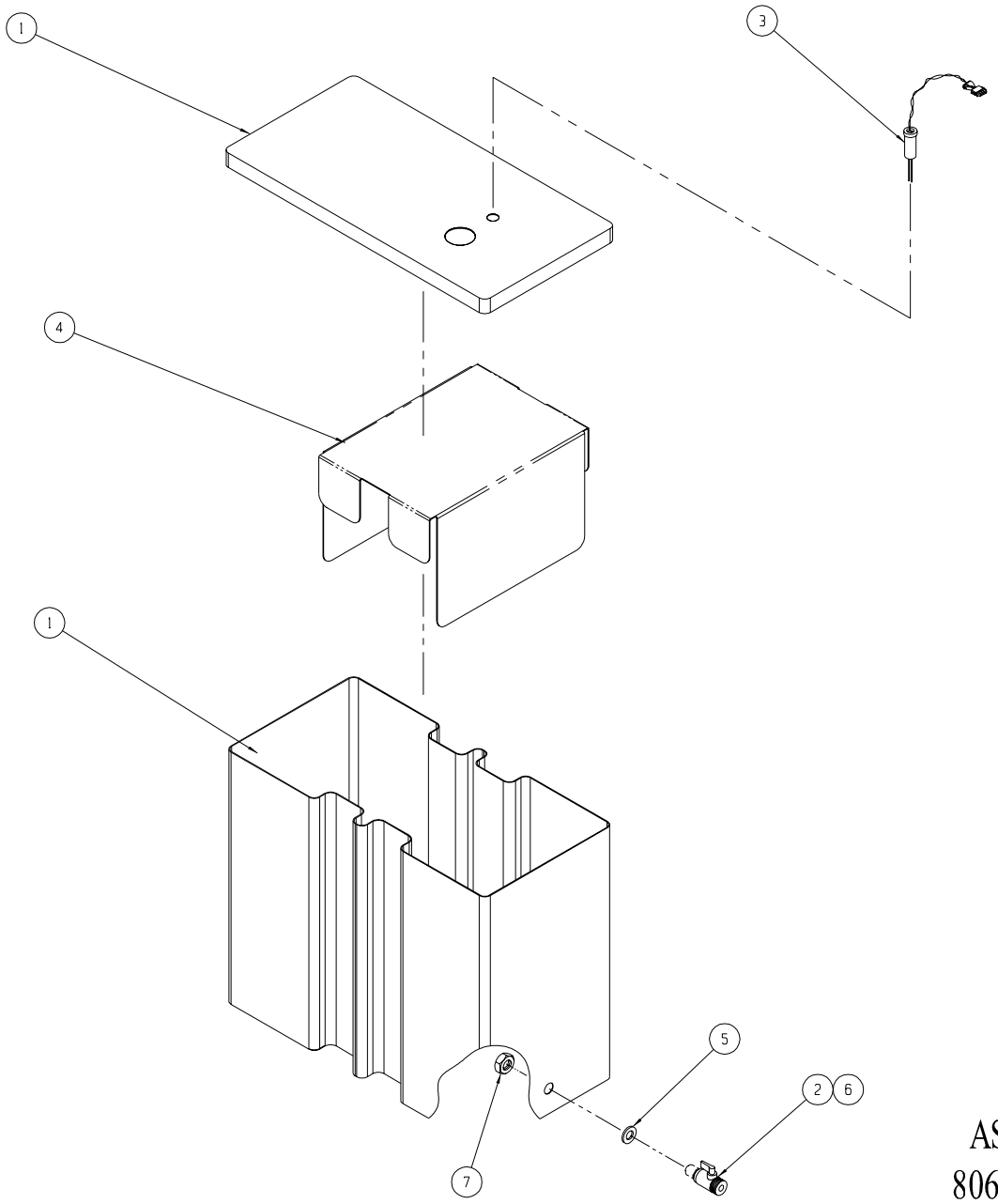
Assembly Number: 806816-001

ASSY-TANK EFFLUENT

Revision: F

Find Number	Quantity Used	Component Number	Component Description
001	1	900937-002	TANK-24 GALLON
002	1	806718-001	ASSY-DRAIN VALVE
003	1	806815-001	ASSY-PROBE EFFLUENT LEVEL
004	1	806803-001	PLATE-TANK SUPPORT
005	1	806804-001	GASKET-FITTING
007	1	901118-001	NUT-PLASTIC

PRINTWARE Confidential



Printware

ASSY-TANK EFFLUENT

806816-001 REVISION: E

Sheet 1 of 1

PRINTWARE Confidential

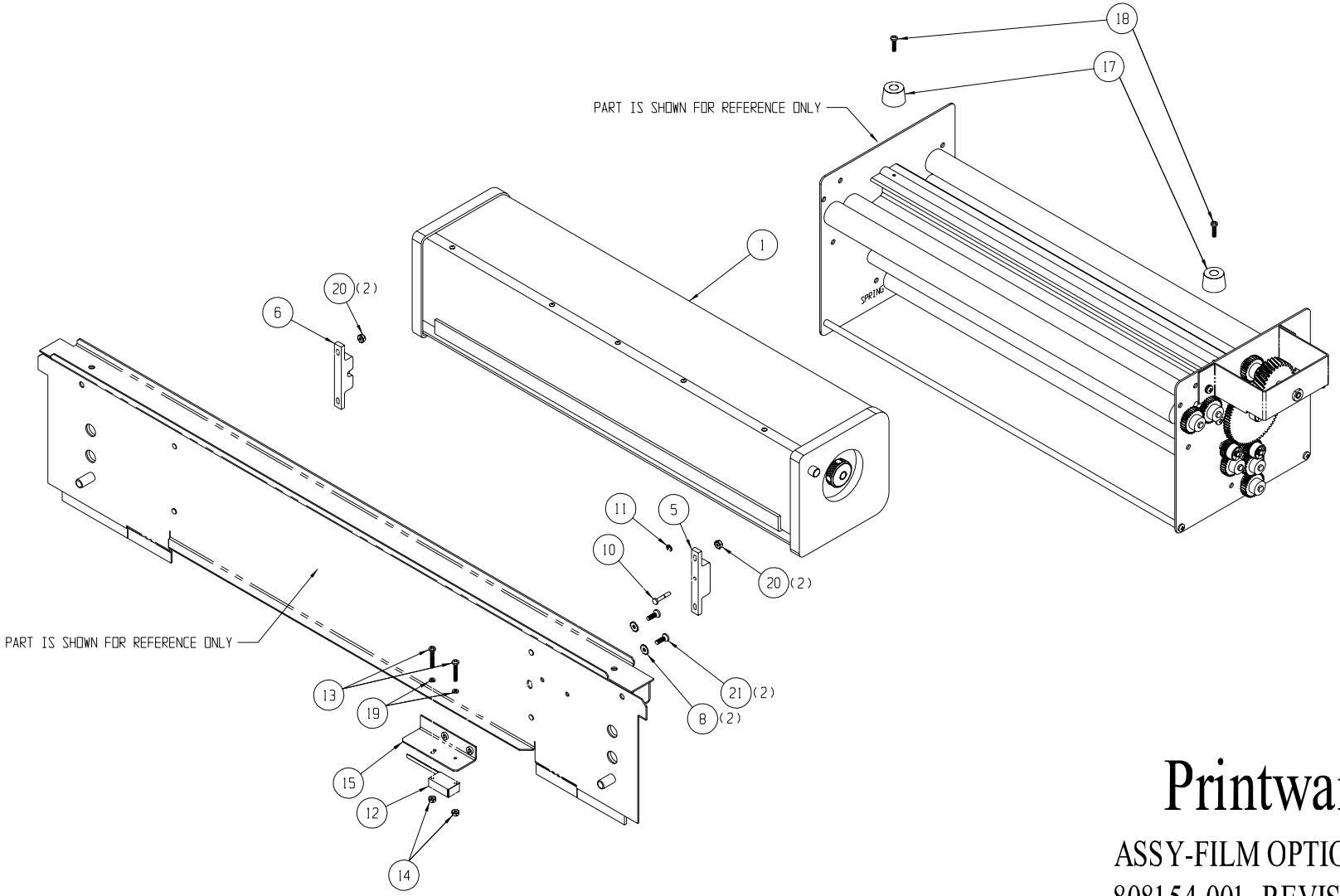
Assembly Number: 808154-001

ASSY-FILM OPTION

Revision: B

Find Number	Quantity Used	Component Number	Component Description
001	1	808149-001	ASSY-CASSETTE TAKEUP
005	1	808203-001	BLOCK-TAKE-UP CASSETTE 46
006	1	808203-002	BLOCK-TAKE-UP CASSETTE 46
008	2	900047-000	WASHER-EXTERNAL LOCK #8
010	1	807237-001	PIN-SWITCH ACTIVATOR
011	1	900229-010	E-RING SAE .125 SHAFT
012	1	600092-000	SWITCH, SLD ST MICRO N.O. L. LEVER
013	2	900287-019	SCREW-PAN PPH 4-40 X .75
014	2	900233-002	NUT-LOCK K #4/40
015	1	808192-001	BRACKET-SWITCH MOUNTING
017	2	900725-001	FEET-ROUND #8 ROUND HEAD
018	2	901089-007	SCREW-STNLSS TAP/FORM 6-32X.75
019	2	900160-010	WASHER-FLAT STEEL # 4 NARROW
020	4	900233-003	NUT-LOCK K #8-32
021	2	900445-007	SCREW-B.H. TORX 8-32 UNC X .500

PRINTWARE Confidential



Printware

ASSY-FILM OPTION PS46

808154-001 REVISION: B

Sheet 1 of 1

PRINTWARE Confidential

Assembly Number: 808243-XXX

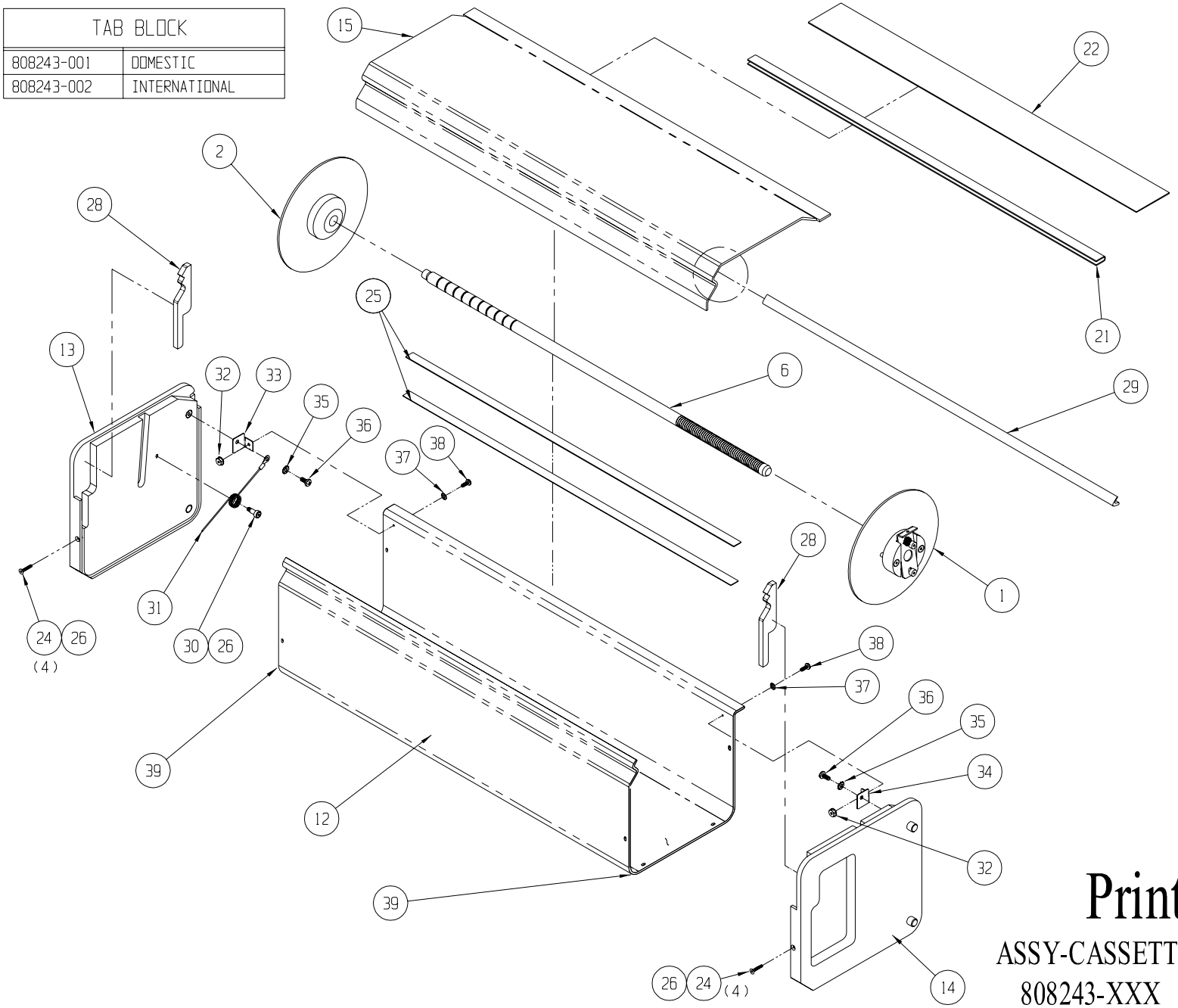
ASSY-CASSETTE SUPPLY 280'

Revision: G

Find Number	Quantity Used	Component Number	Component Description
001	1	806625-002	ASSY-SPOOL PLATE ADJUSTABLE
002	1	806626-002	ASSY-SPOOL PLATE FIXED
006	1	806342-001	AXLE-SPOOL
012	1	806861-002	HOUSING-SUPPLY CASSETTE INTERNATIONAL
012	1	807464-002	HOUSING-SUPPLY CASSETTE DOMESTIC
013	1	806864-001	ASSY-END CAP LH INTERNATIONAL
013	1	807466-001	ASSY-END CAP LH DOMESTIC
014	1	806864-002	ASSY-END CAP RH INTERNATIONAL
014	1	807466-002	ASSY-END CAP RH DOMESTIC
015	1	807463-002	COVER-SUPPLY CASSETTE
021	1	806416-001	STRIP-RETAINING FLEECE
024	8	900237-004	SCREW-SOCKET FLAT HEAD UNC 4-40 X 5/8
028	2	807437-001	GASKET-LIGHT SEAL
029	2	900774-002	SEAL-EMI C FOLD
030	1	900236-015	SCREW-SOCKET HEAD SHOULDER 8-32 X .312
031	1	807472-001	ASSY-GROUNDING SPRING
032	2	900233	NUT-LOCK K, 6-32
033	1	807454-001	BRACKET-GROUND DOMESTIC
033	1	807454-002	BRACKET-GROUND INTERNATIONAL
034	1	807454-002	BRACKET-GROUND
035	2	900047-000	WASHER-EXTERNAL LOCK #8
036	4	900287-003	SCREW-PAN PPH 8-32 X .38
037	2	900047-002	WASHER-EXTERNAL LOCK #6
038	2	900445-004	SCREW-B.H. TORX 6-32 UNC X .375
040	1.5	901244-001	FOAM-SELF ADHESIVE
041	2	900160-005	WASHER-FLAT STEEL #8
042	2	900157-006	SCREW-SET CUP POINT 6-32 X .375
043	1	807559-002	SHEET-PLASTIC ADHESIVE 21.1"

PRINTWARE Confidential

TAB BLOCK	
808243-001	DOMESTIC
808243-002	INTERNATIONAL



Printware

ASSY-CASSETTE SUPPLY 280'

808243-XXX REVISION: E

Sheet 1 of 1

PRINTWARE Confidential